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CANADA

DOMINION BUREAU OF STATISTICS  
TRANSPORTATION AND PUBLIC UTILITIES BRANCH

CENSUS OF INDUSTRY, 1930

# CENTRAL ELECTRIC STATIONS IN CANADA

(Prepared in collaboration with the Dominion Water Power and Hydrometric Bureau, Department of the Interior, with the assistance of The Ontario Hydro-Electric Power Commission, the Quebec Streams Commission, The New Brunswick Electric Power Commission, The Nova Scotia Power Commission, the Manitoba Power Commission and the Saskatchewan Power Commission)

Published by authority of the Hon. H. H. Stevens, M.P.  
Minister of Trade and Commerce



OTTAWA  
F. A. ACLAND  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY  
1932

Price, 25 cents





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## PREFACE

The data pertaining to the central electric station industry in Canada are collected and the report is compiled by the Bureau under authority of the Statistics Act, 8-9, George V, Chap. 43.

The Bureau is indebted to the Dominion Water Power and Hydrometric Bureau of the Interior Department for checking both the schedules and the report, which was done under a co-operative arrangement made when the annual census was inaugurated. The Bureau also wishes to gratefully acknowledge the assistance received from the Electricity and Gas Inspection Service of the Department of Trade and Commerce and from the several provincial power commissions.

R. H. COATS,  
*Dominion Statistician.*

DOMINION BUREAU OF STATISTICS,  
OTTAWA, March 10, 1932.

**DOMINION BUREAU OF STATISTICS**  
**TRANSPORTATION AND PUBLIC UTILITIES BRANCH**

R. H. COATS, B.A., F.S.S. (Hon.), F.R.S.C., Dominion Statistician  
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## CENTRAL ELECTRIC STATION INDUSTRY, 1930

The census of the central electric station industry in Canada is taken each year under authority of the Statistics Act, 1918 (8-9, George V, Chap. 43), by means of questionnaires or schedules sent by mail to all central electric stations. None of the data is collected by officials of the Bureau going into the field, but all schedules are examined and revised by the Bureau's staff and missing data or corrections are secured by correspondence.

For the purpose of the census, central electric stations are defined as companies, municipalities or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell; many of them also purchase power to supplement their own output, and (b) non-generating, those stations which purchase all the power they sell. In this second class there were 14 stations which were holding generating equipment classed as auxiliary plant equipment. Eight of them purchased all their electric energy and the remaining six generated only 2,419,000 kilowatt hours. Two of these sold their generating plants during the year and, consequently, were classified as non-generating stations at the end of the year but they produced over 80 per cent of this total. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of some stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants, the statistics pertaining to the central electric station phase of the industry have been segregated as accurately as possible.

An explanation of what is included in each of the tables and what each item covers will be given later when discussing tables 3 to 15 inclusive.

The total output of all stations amounted to 18,093,802,000 kilowatt hours which was an increase of only 131,287,000 kilowatt hours, or .7 per cent. When the increase in energy produced for export is deducted the output available for use in Canada was less than for 1929 by 48,118,000 kilowatt hours, or approximately one day's output. This reduction, of course, was due to the business depression and would have been worse but for the increase in lighting customers.

The table below shows the output each year, 1919-1930, by commercial and municipal stations. The large increase in 1923 in output of municipal stations was due largely to the transfer of commercial plant to municipal ownership.

## CENSUS OF INDUSTRY

OUTPUT OF CENTRAL ELECTRIC STATIONS  
(Thousand of Kilowatt Hours)

Year	Increase over previous year (Per cent)	Total	Commercial Stations	Municipal Stations
1930.....	0.7	18,093,802	12,937,014	5,156,788
1929.....	10	17,962,515	12,774,107	5,188,408
1928.....	12	16,337,804	11,460,974	4,876,830
1927.....	20	14,549,099	9,944,422	4,604,677
1926.....	20	12,093,445	7,797,480	4,295,965
1925.....	9	10,110,459	6,527,103	3,583,356
1924.....	15	9,315,277	6,024,312	3,290,965
1923.....	20	8,099,192	5,074,120	3,025,072
1922.....	20	6,740,750	5,113,676	1,621,074
1921.....	-5	5,614,132	4,316,272	1,297,860
1920.....	7	5,894,867	4,456,428	1,438,439
1919.....		5,497,204	4,191,223	1,305,981

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Service of the Department of Trade and Commerce, and the same branch of the department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1931, the export duty amounted to \$395,544 as against \$318,792 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export by each company and the total quantity generated by each for the calendar year 1930, the outputs shown being for the exporting stations only of these organizations, also the amounts exported, the differences between the exports and the quantities produced for export being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS GENERATED BY EXPORTING STATIONS, PRODUCED FOR EXPORT, AND  
EXPORTED TO THE UNITED STATES, 1930

Company	Total Output	Produced for Export	Exported
	Kilowatt Hours	Kilowatt Hours	Kilowatt Hours
Hydro Electric Power Commission of Ontario.....	3,162,170,500	388,027,700	383,411,500
Hydro Electric Power Commission of Ontario (Surplus).....	410,166,800	410,166,800	401,827,777
Cedar Rapids Manufacturing and Power Co., Ltd.....	961,572,740	500,535,481	476,400,847
Canadian Niagara Power Company, Ltd.....	614,411,500	338,287,820	326,070,666
Canadian Niagara Power Company, Ltd. (Surplus).....	490,100	490,100	490,100
Western Power Company of Canada, Ltd.....	288,442,700	2,508	2,400
Ontario and Minnesota Power Co., Ltd.....	16,054,865	10,782,200	10,782,200
Maine and New Brunswick Electrical Power Co.....	15,098,400	12,493,145	11,906,324
British Columbia Electric Railway Co., Ltd.....	149,241,276	40,643	35,369
Northport Power and Light Co.....	268,053	268,053	268,053
Maritime Electric Company, Ltd.....	1,993,050	666,900	666,900
Southern Canada Power Co.....	13,321,400	400,020	367,176
Northern British Columbia Power Co.....	451,714	51,360	51,360
The International Railway Co.....	2,720,600	718,470	718,470
Fraser Companies, Ltd.....	6,927,700	6,603,570	6,603,570
Detroit and Windsor Subway Company.....	(Purchased)		1,200
Total.....	5,643,331,398	1,669,534,768	1,619,603,912
Kilowatt Hours produced for export and exported by central electric stations only.....	5,633,683,098	1,662,212,728	1,612,280,672

Although there were 276 stations using fuel as the source of energy, the 311 stations, or 53 per cent of the total number, using water-power generated over 98 per cent of the total output. The fuel using stations as a whole were small local stations, the average capacity being only 782 K.V.A. whereas the hydro-electric plants served large areas with transmission lines up to 250 miles in length and capacities up to 497,000 K.V.A.



Of the total water-power equipment installed in Canada with a rated capacity at 6,125,012 horse-power, 84 per cent was in central electric stations, 9.5 per cent was in pulp and paper mills and the remaining 6.5 per cent was in saw mills, grist mills and other industries.

Below is a table compiled by the Dominion Water Power and Hydrometric Bureau showing the potential water power on two bases and the capacity of equipment installed at the close of 1930 and 1931.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province  1	Available 24-hour power at 80% Efficiency		Turbine Installation	
	At Ordinary Minimum Flow 2	At Ordinary Six months Flow 3	1930	1931
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island.....	3,000	5,300	2,439	2,439
Nova Scotia.....	20,800	128,300	114,224	111,999
New Brunswick.....	68,600	169,100	113,681	133,681
Quebec.....	8,459,000	13,064,000	2,718,130	3,100,330
Ontario.....	5,330,000	6,940,000	2,088,055	2,145,205
Manitoba.....	3,309,000	5,344,500	311,925	390,925
Saskatchewan.....	542,000	1,082,000	42,035	42,035
Alberta.....	390,000	1,049,500	70,532	70,532
British Columbia.....	1,931,000	5,103,500	630,792	655,992
Yukon and Northwest Territories.....	294,000	731,000	13,199	13,199
CANADA.....	20,347,400	33,617,200	6,125,012	6,666,337

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals.

With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power, or approximately 6.5 times the 1931 installation.

TABLE 1.—COMPARATIVE SUMMARY, 1922-1930

During the nine years, 1922-1930, in which the industry has been exceedingly active, the number of power plants increased only 12.5 per cent but the capital was doubled. The total number of customers increased by 52.6 per cent but the output increased by 168.4 per cent. When the exports to the United States are deducted and imports added the increase was 185 per cent which indicates a considerable increase per customer. The pulp and paper industry which uses enormous quantities of power has grown at a very rapid rate, especially in respect to power purchased from central electric stations. The motors in these mills operated on purchased power have increased in capacity 345 per cent in this period and, in addition, the industry has greatly increased the consumption of electricity in its electric boilers. The average consumption of other users of electricity for power purposes and of domestic and commercial lighting customers has also increased so that despite the general business de-

pression the central electric station industry showed increases in 1930 over the previous year in capital of 7·8 per cent, in revenue of 2·6 per cent, in pole line mileage of 13·8 per cent, in customers of 3·3 per cent, in output of ·7 per cent and in generating capacity of 10·2 per cent. All power equipment except D.C. dynamos showed increases in average capacities during 1922-1930, water wheels increasing from 3,358 horse power to 6,503 horse power, steam turbines from 2,184 to 3,291 horse power and A.C. dynamos from 2,014 to 4,309 K.V.A.; D.C. dynamos decreased from 57 to 28 K.W. Steam reciprocating engines have shown a fairly continuous decline each year with but one exception, in both number and capacity, whereas steam turbines have increased in favour as prime movers. Internal combustion engines in use have been declining in numbers during the last three years, but increasing in size, the average capacity in 1927 being 50 horse power and in 1930, 79 horse power. From 1922 to 1927 there was a continuous increase in number but a decrease in capacity.

TABLE 2.—SUMMARY OF PRINCIPAL DATA, 1929-1930

Commercial stations accounted for 63·60 per cent of the total capital employed in the industry as against 64·96 in 1929. The ratio of total revenue, however, increased from 57·68 per cent to 58·13 per cent and the output from 71·12 to 71·50 per cent. The ratio of employees decreased from 51·11 to 50·05 per cent and of pole line mileage from 52·10 to 48·38 per cent. Municipal stations served 53·62 per cent of the customers as against 52·84 in 1929. The comparisons of commercial light and power customers are affected by the classifications as explained under table 8.

TABLE 3.—POWER PLANTS

The definition of a central electric station as adopted for census purposes was given at the beginning of this report. Some organizations operate several systems which are in different municipalities and which are not connected by transmission lines, and, in other cases, many municipalities are served from one power plant. The organizations reporting are counted as they report. If a commercial organization makes a separate report for each of its subsidiary companies, each such subsidiary company is counted, and if it includes them all in one report, they are counted as only one organization. The nature of control is so varied that it is not practicable to do otherwise. The power plants shown in this table are individual plants, counted irrespective of ownership or location. In some cases, two or more of these are operated by one company, some of them being close together, and others, miles apart.

There was a net increase in the number of hydraulic plants of 11 and a net reduction in fuel plants of 9. Commercial power plants decreased by one hydraulic and increased by two fuel, and municipal power plants increased by 12 hydraulic and decreased by 11 fuel. The municipal plants showed a net decrease of 5, Saskatchewan alone showing a net decrease of 11 plants; the Saskatchewan Power Commission supplied energy to 15 municipalities that formerly operated their own plants.

TABLE 4.—CAPITAL

The capital employed in the industry is reported under four heads, viz., generation, transmission, distribution, and general. Generation includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. Transmission includes investments in receiving stations and sites, rights of way of transmission lines and step-up transformers. Distribution includes investments in substations and sites and rights of way of distribution lines, switch-



boards and step-down transformers in receiving stations and substations, distribution lines, line transformers, meters, etc. General includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, of stations operating, and does not include any investments by new organizations not yet operating but does include expenditures by organizations operating plants, which have been made for future installations of equipment. Consequently the averages per horse power and per K.V.A. are increased by the inclusion of such capital. The averages of investment per mile of distribution and transmission line are more indicative of the different types of lines in each province than of comparative costs of the same types. During the year Quebec passed Ontario and now has the largest investment in central electric stations with a total of \$445,381,055 as against Ontario's \$440,872,470. The relative increase was all in generating plant as Ontario still has the largest investment in transmission and distribution plant. The increase during the year in total capital of the industry was \$82,468,484 as against increases of \$98,811,929 and \$90,094,318, respectively, in 1929 and 1928. The increase for commercial stations was \$38,118,801 and for municipal stations, \$44,349,683. Although fuel stations decreased in number, the capital increased by \$8,652,964, of which \$6,859,995 was for Saskatchewan stations. There was only one hydraulic station in Saskatchewan which has been included with Manitoba stations so as not to reveal the statistics of an individual company. The station is on the Churchill river very close to the Manitoba boundary and all the power generated is used in Manitoba.

TABLE 5.—REVENUES

The schedule required a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service which includes lighting and all other uses in private residences, (3) commercial light, (4) power, small, 50 K.W. and under, (5) power, large, over 50 K.W., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge for street lighting, to public buildings, etc. Although all the returns were not complete, sufficient data were reported to allow some very interesting computations. Line losses amounted to as much as 35 per cent for a system with 250 miles of transmission and 185 miles of distribution lines distributing 11 million kilowatt hours. The records of the industry as a whole are not yet complete enough to compute data from which general deductions may be drawn. The average revenue per kilowatt hour for domestic service, including farm service, was 2.29 cents for all of Canada. This is comparable with 6.03 cents for domestic service in the United States. These averages are computed by dividing the total revenue collected from these classes of customers by the total consumption as measured at the customers' meters and, consequently, no line losses are included. The low rates for cooking and heating in effect in Winnipeg showed their effect in the Manitoba average which at 1.10 cents was by far the lowest of all the provinces although for all services, including line losses, Quebec stations earned only .49 cent as against Manitoba's .66 cent. The large quantities used by pulp and paper mills and other large power customers affected these averages for all uses. The average yearly bill for large power users was \$11,588 in Quebec as against \$738 in Manitoba. The statistics for Ontario are not directly comparable because data for power customers on the provincial system were for both large and small customers. Data for domestic and farm service, however, are on a parity for each province.

TABLE 6.—EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Salaries and wages amounted to \$27,287,443, which was an increase of \$2,455,622 over the 1929 pay-roll. Fuel showed a decrease of \$421,016 and taxes an increase of \$562,616, or 11.3 per cent, the major part of which was paid by the commercial stations. Taxes paid by municipal systems include taxes levied on commercial plants acquired by the Ontario provincial system and continued, and, in Manitoba, Saskatchewan and Alberta, taxes paid by the municipal systems of Winnipeg, Saskatoon, Lethbridge and Calgary. Taxes paid by other municipal systems were relatively small.

TABLE 7.—EMPLOYEES

There was an increase in the number of employees during the year of 1,693, or 10.5 per cent. These are monthly averages and, consequently, any decline at the end of the year is not revealed, but this was one of the few industries to show an increased employment. The increase was general throughout all the provinces with Ontario and Quebec showing the largest increases of 472 and 469, respectively.

TABLE 8.—CUSTOMERS

As explained under table 5, complete segregation of customers was not made by all stations. This applies especially to the municipalities on the Ontario provincial system where all power customers were included in one figure. It was also necessary to include farm services with domestic service customers. Some stations install separate meters in houses to measure consumptions for lighting and for cooking and heating, whereas others use only one meter for all domestic services. To put them all on the same basis, each residence or household using electricity was counted as only one customer irrespective of the use or number of meters. In computing the number of street lighting customers, each municipality using electricity for that purpose was counted as one customer irrespective of the method of payment or source of supply. In many municipalities the current was supplied by the local municipal plant, in some places free of charge and in others at a price.

Due to the change in the classification, only total customers, domestic service and street lighting customers are directly comparable with 1929 figures. The increase in the total number was 51,883, in domestic service, 24,843, and in street lighting, 62.

According to the 1931 population census there were 1,603 incorporated cities, towns and villages in Canada. With 1,609 municipalities using electricity for street lighting means that some unincorporated and practically all incorporated municipalities had electric street lights. It is quite possible that some stations did not give a complete list of municipalities served.

TABLE 9.—POLE LINE MILEAGE

The pole line mileage is divided into two divisions, (a) transmission, which includes lines from power houses to receiving stations, and (b) distribution, which includes lines from receiving stations to substations and to customers and, if the power is not stepped up in any power house for transmission, all the pole line mileage of that system is included with the distribution mileage. These mileages are counted irrespective of the number of circuits carried on the poles and towers. The total increase amounted to 5,901 miles, or 13.8 per cent, 2,610 miles of this increase being for transmission and 3,291 miles for distribution. In Saskat-

chewan the transmission mileage more than doubled, increasing from 1,006 miles to 2,112 miles. Practically all of this increase belonged to municipal stations, which showed an increase in total pole line mileage of 1,147 miles, whereas the commercial stations showed an increase of only 34 miles. The largest increase was made by Ontario stations where transmission mileage was extended 298 miles and distribution mileage, 1,958 miles.

#### TABLES 10-11-12.—EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby, equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using fuel only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment more or less regularly during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies. The average output of such auxiliary equipment during 1930 was only 221 kilowatt hours per K.V.A., or in other words, the equipment was used to the equivalent of approximately thirty-five minutes each day. There was very little change in the auxiliary equipment, the decreases in Nova Scotia and Ontario being offset by increases in Quebec, Alberta and British Columbia. Main plant equipment, however, increased by 475,553 horse-power. In 1925 the increase was 720,077 horse-power, but that was the only year showing a larger increase than 1930. This large addition to the industry was due to the completion of plants some of which had been under construction in 1928 and 1929.

There were no changes in generating equipment in Prince Edward Island during the year, but in Nova Scotia the net increase was 48,841 horse-power, including 33,800 horse-power of the Nova Scotia Power Commission. The Commission's fiscal year ends October 31 so that equipment brought into operation in November and December, 1929, was not included until 1930. Its additions to the industry were three new plants on the Mersey river at Big Falls, Lower Lake Falls and Upper Lake Falls with capacities of 12,700 horse-power, 10,600 horse-power and 6,000 horse-power, respectively, and one new plant on the Tusket river of 3,000 horse-power, all brought into operation in November and December, 1929. The Commission also increased the capacity of the Guzzle plant on the Mersey river, taken over from the town of Liverpool in 1928, by replacing the 750 horse-power unit with two 750 horse-power units and included this plant in their 1930 report. The Avon River Power Company brought into operation its Black River plant with one 4,500 horse-power hydraulic turbine. The town of Truro added a steam turbine of 1,426 horse-power and the Sea Board Power Company started operation of its plant equipped with one 10,000 horse-power steam turbine. The Digby County Power Board commenced operation of its second plant with a 600 horse-power unit on the Sissiboo river. In New Brunswick the town of Edmunston added one 1,050 horse-power hydraulic turbine and in Quebec the large additions included the McLaren Quebec Power Company plant at High Falls on the Lievre river, with 3 hydraulic turbines of 30,000 horse-power each, one 5,900 horse-power unit was added to the Metis Falls plant by the Lower St. Lawrence Power Company, two 7,500



horse-power hydraulic turbines were added by the Montreal Island Power Company and one 2,000 horse-power water wheel was brought into operation by the Southern Canada Power Company Limited at its new Burrough Falls plant. In Ontario the Northern Ontario Power Company commenced operation of its Upper Nottawasaga plant on the Nottawasaga river with two 6,500 horse-power water wheels, the Algoma District Power Company added one 11,000 horse-power wheel in its Michipicoten Falls plant and the Hydro Electric Power Commission added the tenth wheel having a capacity of 58,000 horse-power to the Queenston plant, bringing the total capacity of this plant up to 560,000 horse-power, or 497,000 K.V.A. This is the largest plant in Canada. The Commission's Thunder Bay system was enlarged by two 18,000 horse-power wheels in the new Alexander plant and its Northern system was increased by the Ear Falls plant with one 5,000 horse-power unit. There were no large additions in Manitoba, but the plant of the Churchill River Power Company having a capacity of 12,000 horse-power, which started operation in June, is included with the Manitoba stations. All other additions in Saskatchewan were in fuel stations and included one 10,000 horse-power steam turbine in the Saskatchewan Power Commission Saskatoon plant, one 2,000 horse-power steam turbine added to the Estevan plant of the Dominion Electric Power Company, one 22,500 horse-power steam turbine added to the plant of the city of Regina and one 1,000 horse-power steam turbine added to the plant of the city of Weyburn. The Saskatchewan Power Commission installed a number of oil engines in various municipalities, the only large one of 1,250 horse power being in Swift Current. The only large addition in Alberta was a second 18,000 horse-power unit, added to the Ghost plant on the Bow river by the Calgary Power Company. In British Columbia the Northern British Columbia Power Company installed one 6,000 horse-power hydraulic turbine in its new plant on the Falls river, the Western Power Company commenced operation of its Ruskina plant with one 15,000 horse-power hydraulic turbine and the Vancouver Island Power Company added one 18,000 horse-power unit to its Jordan River plant. The British Columbia Electric Railway Company added a 2,000 horse-power water wheel to its Jordan River plant, and the third unit of 25,000 horse-power in the West Kootenay Power and Light Company South Slokan plant installed in 1929 was included for the first time.

During 1930 there was an increase of 6 water wheels with capacities over 25,000 horse-power and a decrease of 10 in small wheels with capacities under 500 horse-power. These with other changes increased the average capacity of all water wheels to 6,503 horse-power as compared with an average of 6,193 horse-power for 1929. Steam turbines also showed the greatest increases in the large units, 3 turbines with capacities of 5,000 to 10,000 horse-power having been added.

TABLE 14.—ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt hour meters, the kilowatt hours are estimated as best possible. The K.V.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 K.V.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising

and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. There was a reduction in the ratio of output to capacity from 50.0 per cent in 1929 to 47.1 per cent in 1930. Plants which were under way when the business depression started were completed but the demand for power did not increase at the same rate as the capacity. In fact it was almost stationary. A ratio of 50 per cent means that if the generators in main and auxiliary plant had operated continuously throughout the year at rated capacity, the output would have been about double the actual output (the amount required for station use must be deducted). The ratio was still high; the corresponding ratio for United States stations in 1927, using the capacity at the end of the year, was only 33 per cent. Of course, variations in the respective markets account for much of this difference. One large Canadian station selling a large part of its output to pulp and paper mills showed a ratio of 70 per cent and a few other large stations showed ratios of over 50 per cent, which considerably increased the ratio for all stations. Over 98 per cent of the total output was generated by hydraulic stations and, as a whole, these stations showed a much higher ratio of output to capacity than the fuel stations. Ontario and Alberta stations showed decreases in total outputs of 292,523,000 and 1,275,000 kilowatt hours, respectively. The decreased outputs of the Niagara Falls plants as shown in the table of exports more than accounted for this decrease in Ontario. After deducting the exports to the United States and adding the imports from Quebec and the United States the total amount available for consumption in Ontario was 7,299,374,000 kilowatt hours as against 7,621,767,000 kilowatt hours in 1929.

The data on the disposal of the output are a new feature of the report and as the stations establish records of the consumption by different classes of customers these data will be improved. All the line losses are included in the last item, being the difference between the output and the sum of the consumption for domestic services including farm services and commercial lighting. Only 8 per cent of the total output passed through the domestic service meters, but the revenue from these sales amounted to \$34,114,680, or 27 per cent of the total revenue. This was an average of 2.29 cents per kilowatt hour. Of course, if the line losses were included, the percentage of total output would be increased and the average revenue per kilowatt hour of output for this service would be reduced. More than half of the total consumption for domestic services was in Ontario; Manitoba ranked second and Quebec third. The low rates, especially for cooking and heating, which are charged in Ontario and Manitoba are the chief factors in these large consumptions. The output of the one hydraulic plant in Saskatchewan near the Manitoba boundary is included with Manitoba, as explained previously.

TABLE 15.—FUEL

The total fuel bill amounted to \$2,594,879 and 40 per cent of this was paid by Saskatchewan stations. Compared with 1929 consumption there was a decrease of only 33,868 tons, or 6.3 per cent of coal, but fuel oil showed a decrease of 7,302,143 gallons, or 58 per cent and natural gas a decrease of 288,201 thousand cubic feet, or 43 per cent. The total tons of coal and other fuels converted to equivalent tons of coal was 477,882 and from this fuel 344,982,000 kilowatt hours were produced. This is an average consumption of 2.77 pounds of coal per kilowatt hour. The corresponding figure for the United States was 1.62 pounds. This higher efficiency in the United States was attained by the larger stations and the more continuous operation. Whereas in the United States approximately two-thirds of the total output was generated by thermal engines, in Canada the ratio was less than 2 per cent. The engines on the whole in Canada were small and also were used only a short time each day, the ratio of output to capacity being only 17.7 per cent.



Table 1—Comparative Summary, 1930-1922

Principal Data by Class of Station		1930	1929	1928	1927	1926
<b>Electric Power Plants—</b>						
<b>Total</b>		587	585	601	629	595
Hydraulic		311	300	300	302	294
Fuel		276	285	301	327	301
Commercial		421	420	428	432	393
Municipal		166	165	173	197	202
<b>Capital—</b>						
<b>Total</b>		1,138,200,016	1,055,731,532	956,919,603	866,825,285	756,220,066
Commercial		723,800,071	685,771,270	614,910,399	528,070,964	430,817,426
Municipal		414,369,945	369,960,262	342,009,204	338,754,321	325,402,640
Generating		995,701,285	926,103,973	835,422,031	750,703,270	647,850,154
Non-generating		142,498,731	129,627,559	121,497,572	116,122,015	108,369,912
<b>Revenue—</b>						
<b>Total</b>		126,038,145	122,883,446	112,328,819	104,033,297	88,933,733
Commercial		73,261,572	70,874,794	64,575,700	59,320,175	47,911,555
Municipal		52,776,573	52,008,652	47,751,119	44,713,122	41,022,178
Generating		104,632,540	102,704,833	92,722,293	86,369,058	72,123,290
Non-generating		21,405,605	20,178,613	19,604,526	17,664,239	16,810,443
<b>Expenses—</b>						
<b>Total</b>		74,209,469	67,432,418	62,330,860	60,169,781	52,766,799
Commercial		33,712,063	31,888,591	30,961,337	28,704,496	24,622,619
Municipal		40,497,406	35,543,827	31,369,523	31,465,285	28,144,181
Generating		40,646,659	36,713,723	33,837,618	31,920,941	27,655,269
Non-generating		33,562,810	30,718,605	28,493,242	28,248,840	25,111,530
<b>Pole Line Mileage—</b>						
<b>Total</b>		48,814	42,913	37,333	33,573	29,695
Commercial		23,614	22,356	18,875	18,747	14,257
Municipal		25,200	20,557	18,458	16,826	15,438
Generating		35,707	30,718	25,524	23,246	20,005
Non-generating		13,107	12,195	11,809	10,327	9,690
<b>Customers—</b>						
<b>Total</b>		1,607,766	1,555,883	1,464,005	1,381,968	1,337,562
Domestic Service <sup>1</sup>		1,317,324	1,202,481	1,207,457	1,142,512	1,110,637
Commercial Light <sup>2</sup>		238,847	233,854	215,728	199,431	188,553
Power (Small)		24,836	28,001	40,820	40,025	38,372
Power (Large)		1,609	1,547	-	-	-
Street Lighting		25,150	-	-	-	-
Commercial stations		745,608	733,698	677,223	622,823	584,760
Municipal stations		862,158	822,185	786,782	759,145	752,802
Generating		814,268	796,298	728,872	699,874	680,717
Non-generating		793,498	759,585	735,133	682,094	656,845
<b>Electric Energy Generated—</b>						
<b>Total Kilowatt Hours (Thousands)</b>		18,093,802	17,962,515	16,337,804	14,549,099	12,093,445
Commercial		12,937,014	12,771,107	11,460,974	9,944,422	7,797,480
Municipal		5,156,788	5,188,408	4,876,830	4,604,677	4,295,965
<b>Exports of Electricity to the United States</b>						
(Thousands) K.W.H.		1,619,603	1,444,524	1,587,761	1,632,614	1,506,002
<b>Imports of Electricity from the United States</b>						
(Thousands) K.W.H.		5,757	6,133	5,223	5,020	5,354
<b>Equipment in Generating Stations (Main Plant only)—</b>						
<b>Total primary power</b>	<b>H.P.</b>					
Water-wheel and turbines	No.	5,401,108	4,925,555	4,627,667	4,173,349	3,769,323
	H.P.	791	762	749	759	730
Steam reciprocating engines	No.	5,144,109	4,718,927	4,445,531	3,975,012	3,609,385
	H.P.	82	99	115	134	151
Steam turbines	No.	22,861	26,103	29,206	33,788	36,386
	H.P.	63	62	56	61	47
Internal combustion engines	No.	207,364	156,873	131,295	144,683	103,847
	H.P.	340	346	366	399	341
Total in commercial stations	H.P.	26,774	23,652	21,635	19,806	19,705
Total in municipal stations	H.P.	3,794,819	3,523,625	3,268,530	2,797,055	2,423,244
<b>Total Secondary Power</b>	<b>K.V.A.</b>					
Dynamos, A.C.	No.	1,606,280	1,401,930	1,359,317	1,376,294	1,346,079
	K.V.A.	4,474,865	4,048,019	3,764,331	3,385,227	2,995,387
Dynamos, D.C.	No.	1,037	1,006	994	1,008	977
	K.W.	4,468,513	4,041,178	3,757,036	3,375,499	2,985,935
Total in commercial stations	K.V.A.	226	245	277	311	249
Total in municipal stations	K.V.A.	6,352	6,841	7,295	9,728	9,452
<b>Auxiliary Plant Equipment—</b>						
Primary power	H.P.	3,181,428	2,940,210	2,690,097	2,297,005	1,938,048
Secondary power	K.V.A.	1,293,437	1,107,809	1,074,234	1,088,222	1,057,339
	H.P.	171,453	171,889	159,233	145,047	176,865
	K.V.A.	145,678	146,251	135,440	121,863	145,828

<sup>1</sup> Duplications excluded.<sup>2</sup> Includes wages, cost of power, and fuel for 1930-1922 and for 1930-1925 taxes, but not other expenses.<sup>3</sup> Farm service is included with domestic service.<sup>4</sup> Includes small power customers in 1929.

Tableau 1—Résumé comparatif, 1930-1922

1925	1924	1923	1922	Per cent increase 1930 over 1922 — Pourcentage d'augmenta- tion de 1930 sur 1922	Données principales par classes d'usines
563	532	532	522	12-5	<b>Usines Electriques—</b>
284	273	269	269	15-6	<b>Total.</b>
279	259	263	253	9-1	Hydrauliques.
365	333	335	326	29-1	A combustible.
198	199	197	196	-15-3	Commerciales.
					Municipales.
					<b>Capitaux—</b>
726,721,057	628,565,093	581,780,611	568,068,752	100-4	<b>Total.</b>
409,862,801	326,554,580	307,046,240	326,448,922	121-7	Commerciales.
316,858,286	302,010,513	274,734,371	241,619,830	71-5	Municipales.
625,970,883	532,016,164	489,085,939	484,635,750	105-5	Productrices.
100,750,204	96,548,929	92,694,672	83,433,002	70-8	Non-productrices.
					<b>Recettes<sup>1</sup>—</b>
79,341,584	74,616,863	67,496,893	62,173,179	102-7	<b>Total.</b>
42,195,543	39,033,665	37,040,835	37,894,341	93-3	Commerciales.
37,146,041	35,583,198	30,456,058	24,278,838	117-4	Municipales.
63,547,553	59,861,915	52,681,003	48,102,723	117-5	Productrices.
15,794,031	14,754,948	14,815,890	14,070,456	52-1	Non-productrices.
					<b>Dépenses<sup>2</sup>—</b>
47,635,531	40,887,779	41,067,329	37,327,493	-	<b>Total.</b>
21,325,649	16,777,557	15,319,394	14,704,651	-	Commerciales.
26,309,982	24,110,222	25,747,935	22,622,842	-	Municipales.
24,857,279	20,198,257	20,992,105	19,304,835	-	Productrices.
22,778,252	20,689,522	20,075,224	18,022,658	-	Non-productrices.
					<b>Lignes sur poteaux—</b>
27,653	26,654	23,560	22,669	115-3	<b>Total.</b>
13,047	12,102	11,146	11,123	112-3	Commerciales.
14,606	14,552	12,414	11,546	118-3	Municipales.
18,372	17,340	14,405	13,927	156-4	Productrices.
9,281	9,314	9,155	8,742	49-9	Non-productrices.
					<b>Abonnés—</b>
1,279,731	1,200,950	1,112,547	1,053,545	52-6	<b>Total.</b>
1,063,530	989,510	920,223	889,346	-	Service domestique <sup>3</sup> .
180,994	176,444	159,929	164,199	-	Eclairage commercial.
35,207	34,996	32,395	-	-	Force motrice (petits abonnés).
-	-	-	-	-	Force motrice (gros abonnés).
-	-	-	-	-	Eclairage des rues.
559,172	521,064	496,591	476,285	56-5	Commerciales.
720,559	679,886	615,956	577,260	49-4	Municipales.
653,032	610,206	547,928	533,923	52-5	Productrices.
626,699	590,744	564,619	519,622	52-7	Non-productrices.
					<b>Energie Electrique Produite—</b>
10,110,459	9,315,277	8,099,192	6,740,750	168-4	<b>K.W. Heures produites (milles)—</b>
6,527,103	6,024,312	5,074,120	5,119,676	152-7	Commerciales.
3,583,356	3,290,965	3,025,072	1,621,074	218-1	Municipales.
					<b>Exportations d'électricité aux Etats-Unis..... (1000) K.W.H.</b>
1,285,540	1,302,317	1,343,501	976,522	65-8	<b>Importations d'électricité des Etats-Unis..... (1000) K.W.H.</b>
-	-	-	-	-	<b>Machineries dans les usines productrices (Machines des usines principales) —</b>
3,569,527	2,849,450	2,423,845	2,258,396	139-2	<b>Total, force motrice primaire..... H.P.</b>
710	667	641	629	25-8	Turbines et roues hydrauliques..... Nomb.
3,416,018	2,707,957	2,282,547	2,112,289	143-5	H.P.
147	147	159	175	-53-2	Machines à vapeur..... Nomb.
34,230	33,876	37,116	40,484	-43-5	H.P.
43	40	38	41	53-7	Turbines à vapeur..... Nomb.
101,457	90,617	87,767	89,545	131-6	H.P.
306	271	262	225	51-1	Moteurs à explosions..... Nomb.
17,822	17,000	16,415	16,080	66-5	H.P.
2,243,318	1,701,793	1,451,498	1,565,229	142-4	Total dans les usines commerciales... H.P.
1,326,209	1,147,657	972,347	693,169	131-7	Total dans les usines municipales... H.P.
2,844,709	2,282,046	1,861,845	1,736,199	157-7	<b>Total force motrice secondaire..... K.V.A.</b>
935	881	860	857	21-0	Dynamos, C.A..... Nomb.
2,835,742	2,273,461	1,852,396	1,725,831	158-9	K.V.A.
231	206	208	181	24-9	Dynamos, C.D..... Nomb.
8,967	8,585	9,449	10,368	-38-7	K.W.
1,803,545	1,401,471	1,140,945	1,210,947	162-7	Total dans les usines commerciales... K.V.A.
1,041,164	880,575	720,900	525,252	146-3	Total dans les usines municipales... K.V.A.
					<b>Machines des usines auxiliaires—</b>
173,170	168,102	149,572	150,257	14-1	Force motrice primaire..... H.P.
142,421	136,755	121,832	122,214	19-2	Force motrice secondaire..... K.V.A.

<sup>1</sup> Les doubles emplois exclus.<sup>2</sup> Comprend gages, coût de la force motrice et du combustible en 1930 et 1922 et les taxes pour 1930-1925, mais pas d'autres dépenses.<sup>3</sup> Le service de la ferme est compris dans le service domestique.<sup>4</sup> Comprends les petites abonnés pour force motrice.

Table 2—Summary of Principal Data, 1930-1929

	Total		Commercial — Commerciales		Municipal — Municipales	
	1930	1929	1930	1929	1930	1929
	1	2	3	4	5	6
<b>Total Number of Electric Power Plants...</b>	<b>587</b>	<b>585</b>	<b>421</b>	<b>420</b>	<b>166</b>	<b>165</b>
No. of hydraulic plants.....	311	300	211	212	100	88
No. of fuel plants.....	276	285	210	208	66	77
<b>Total Capital.....</b>	<b>1,138,200,016</b>	<b>1,055,731,532</b>	<b>723,890,071</b>	<b>685,771,270</b>	<b>414,309,945</b>	<b>369,960,262</b>
Lands, buildings, equipment, etc.	1,083,946,430	1,001,562,462	692,038,085	653,404,280	391,908,345	348,158,182
Materials on hand, cash trading accounts, etc.....	54,253,586	54,169,070	31,851,986	32,366,990	22,401,600	21,802,080
<b>Total Net Revenue from Sale of Electric Energy.....</b>	<b>126,038,145</b>	<b>122,883,446</b>	<b>73,261,572</b>	<b>70,874,794</b>	<b>52,776,573</b>	<b>52,008,652</b>
<b>Expenses.....</b>	<b>74,209,469</b>	<b>67,432,418</b>	<b>33,712,063</b>	<b>31,888,591</b>	<b>40,497,406</b>	<b>35,543,827</b>
Salaries and wages.....	27,287,443	24,831,821	13,072,463	12,245,048	14,214,980	12,580,773
Fuel.....	2,594,879	3,015,895	1,357,841	1,624,549	1,237,038	1,391,346
Cost of Power.....	38,795,768	34,615,939	14,353,792	13,554,695	24,441,976	21,061,244
Taxes.....	5,531,379	4,968,763	4,927,967	4,464,299	603,412	504,464
<b>Total Number of Employees.....</b>	<b>17,857</b>	<b>16,164</b>	<b>8,937</b>	<b>8,261</b>	<b>8,920</b>	<b>7,903</b>
<b>Total Mileage of Pole Lines.....</b>	<b>48,814</b>	<b>42,913</b>	<b>23,614</b>	<b>22,356</b>	<b>25,200</b>	<b>20,557</b>
For transmission.....	19,679	17,069	11,505	11,054	8,174	6,015
For distribution.....	29,135	25,844	12,109	11,302	17,026	14,542
<b>Total Number of Customers.....</b>	<b>1,607,766</b>	<b>1,555,883</b>	<b>745,608</b>	<b>733,698</b>	<b>862,158</b>	<b>822,185</b>
Domestic service (1).....	1,317,324	1,202,481	598,499	601,628	718,825	690,853
Commercial light (2).....	238,847	233,854	121,678	118,416	117,169	115,438
Power (Small (2)).....	24,836	28,001	14,906	12,608	9,930	15,393
(Large).....	25,150		9,416		15,734	
Street lighting.....	1,609	1,547	1,109	1,046	500	501
<b>Total K.W. Hours Generated (Thousands)</b>	<b>18,093,802</b>	<b>17,962,515</b>	<b>12,937,014</b>	<b>12,774,107</b>	<b>5,156,788</b>	<b>5,188,408</b>
<b>Total Power (excluding Auxiliary Plant Equipment)</b>						
	Total		Commercial — Commerciales		Municipal — Municipales	
	1930	1929	1930	1929	1930	1929
	1	2	3	4	5	6
<b>Total Primary Power..... H.P....</b>	<b>5,401,108</b>	<b>4,925,555</b>	<b>3,794,819</b>	<b>3,523,625</b>	<b>1,606,289</b>	<b>1,401,930</b>
Water wheels and turbines..... No.....	791	762	538	541	253	221
Steam reciprocating engines..... No.....	5,144,109	4,718,927	3,690,095	3,444,533	1,454,014	1,274,394
H.P.....	82	99	53	59	29	40
Steam turbines..... No.....	22,861	26,103	13,586	14,779	9,275	11,324
H.P.....	63	62	31	28	32	34
Gas and oil engines..... No.....	207,364	156,873	74,963	48,823	132,401	108,050
H.P.....	340	346	259	264	81	82
H.P.....	26,774	23,652	16,175	15,490	10,599	8,162
<b>Total Secondary Power..... K.V.A....</b>	<b>4,474,865</b>	<b>4,048,019</b>	<b>3,181,428</b>	<b>2,940,210</b>	<b>1,293,437</b>	<b>1,107,809</b>
Dynamos, A.C..... No.....	1,037	1,006	667	657	370	349
Dynamos, D.C..... K.V.A....	4,468,513	4,041,178	3,176,669	2,935,002	1,291,844	1,106,176
No.....	226	245	205	221	21	24
K.W.....	6,352	6,841	4,759	5,208	1,593	1,633

(1) Farm service is included with domestic service.

(2) Small power included with commercial light in 1929.



Tableau 2—Résumé comparatif des données principales, 1930-1929

Generating Productrices		Non-generating Non-productrices		Per cent of Column 1 Pour cent de la 1ère col.				
1930	1929	1930	1929	Com- mer- ciales	Muni- ci- pales	Gene- rating Pro- duc- trices	Non- Gen. Non- prod- uct.	
				1930	1930	1930	1930	
7	8	9	10	11	12	13	14	
587	585	-	-	71.72	28.28	100.00	-	Nombre d'usines génératrices.
311	300	-	-	67.85	32.15	100.00	-	Nombre d'usines hydrauliques.
276	285	-	-	76.09	23.91	100.00	-	Nombre d'usines thermiques.
995,701,285	926,103,973	142,498,731	129,627,559	63.60	36.40	87.48	12.52	Total des capitaux.
958,219,107	886,733,155	125,727,323	114,829,307	63.84	36.16	88.40	11.60	Terrains, bâtiments, aménagements, etc.
37,482,178	39,370,818	16,771,408	14,798,252	58.71	41.29	69.09	30.91	Matières premières en stock, fonds de caisse, créances à recouvrer, etc.
104,632,540	102,704,833	21,405,605	20,178,613	58.13	41.87	83.02	16.98	Total des recettes nettes par l'électricité vendue.
40,616,659	36,713,723	33,562,810	30,718,695	45.43	54.57	54.77	45.23	Dépenses.
18,954,388	17,502,890	8,333,055	7,328,931	47.91	52.09	69.46	30.54	Salaires et gages.
2,561,626	3,005,689	33,253	10,206	52.33	47.67	98.72	1.28	Combustible.
14,152,253	11,667,539	24,643,515	22,948,400	37.00	63.00	36.48	63.52	Achat de force motrice électrique.
4,978,392	4,537,605	552,987	431,158	89.09	10.91	90.00	10.00	Impôts.
12,158	11,128	5,699	5,036	50.05	49.95	68.09	31.91	Nombre total du personnel.
35,707	30,718	13,107	12,195	48.38	51.62	73.15	26.85	Long. en milles des lignes sur poteaux.
17,276	14,969	2,403	2,100	58.46	41.54	87.79	12.21	De transmission.
18,431	15,749	10,704	10,095	41.56	58.44	63.26	36.74	De distribution.
814,268	796,298	793,498	759,585	46.38	53.62	50.65	49.35	Nombre total des abonnés des usines.
657,558	656,444	659,766	636,037	45.43	54.57	49.92	50.08	Pour service domestique <sup>(1)</sup> .
128,108	127,878	110,739	105,976	50.94	49.06	53.64	46.36	Pour éclairage commercial <sup>(2)</sup> .
19,156	10,998	5,680	17,003	60.02	39.98	77.13	22.87	Pour force motrice (petits abonnés) <sup>(2)</sup> .
8,462		16,688	37,44	62.56	33.65	66.35		Pour force motrice (gros abonnés).
984	978	625	569	68.92	31.08	61.16	38.84	Pour éclairage des rues.
18,091,383	17,961,762	2,419	753	71.50	28.50	99.99	0.01	Total des kilowatt Heures produits (milliers).

Etat de la machinerie (à l'exclusion de celle des usines auxiliaires)								Total Power Equipment in Auxiliary Plants  Machines des usines auxiliaires		
Per cent of Cols. 1 and 2 Pourcent des col. 1 et 2				Per cent of Totals of Cols. 3, 4, 5 and 6 Pourcent des col. 3, 4, 5 et 6						
Commercial		Municipal		Commercial		Municipal				
1930	1929	1930	1929	1930	1929	1930	1929	1930	1929	
7	8	9	10	11	12	13	14	15	16	
70.26	71.54	29.74	28.46	100.00	100.00	100.00	100.00	171,453	171,888	Total, force motrice primaire. H.P.
68.02	71.00	31.98	29.00	-	-	-	-	-	-	Turbines et roues hydrauliques Nomb. H.P.
71.73	72.99	28.27	27.01	97.24	97.76	90.52	90.90	-	-	Machines à vapeur..... Nomb. H.P.
64.63	59.60	35.37	40.40	-	-	-	-	47	50	Turbines à vapeur..... Nomb. H.P.
59.43	56.62	40.57	43.38	0.36	0.42	0.58	0.81	14,966	15,866	Moteurs à explosions..... Nomb. H.P.
49.21	45.16	50.79	54.84	-	-	-	-	39	39	
36.15	31.12	63.85	68.88	1.97	1.38	8.24	7.71	148,799	148,799	
76.18	76.30	23.82	23.70	-	-	-	-	36	36	
60.41	65.49	39.59	34.51	0.43	0.44	0.66	0.58	7,688	7,223	
71.10	72.63	28.90	27.37	100.00	100.00	100.00	100.00	145,678	146,251	Total, force motrice secondaire. K.V.A.
64.32	65.31	35.68	34.69	-	-	-	-	105	102	Dynamos, C.A..... Nomb. K.V.A.
71.09	72.63	28.91	27.37	99.85	99.82	99.88	99.85	143,882	143,947	Dynamos, C.D..... Nomb. K.W.
90.71	90.20	9.29	9.80	-	-	-	-	6	13	
74.92	76.13	25.08	23.87	0.15	0.18	0.12	0.15	1,796	2,304	

(1) Le service de la ferme est compris dans le service domestique.

(2) Les petits abonnés pour force motrice compris avec ceux pour éclairage commercial en 1929.

## CENSUS OF INDUSTRY

Table 3—Electric Power Plants, 1930

	Canada	Prince Edward Island — Ile du Prince- Edouard	Nova Scotia — Nouvelle- Ecosse	New Brunswick — Nouveau- Brunswick	Quebec — Québec
<b>Total Number of Power Generating Stations.....</b>	<b>587</b>	<b>11</b>	<b>53</b>	<b>19</b>	<b>98</b>
Per cent of total for Canada.....	100.00	1.87	9.03	3.24	16.70
Commercial.....	421	9	27	15	84
Hydraulic.....	211	8	13	4	82
Fuel.....	210	1	14	11	2
Municipal.....	166	2	26	4	14
Hydraulic.....	100	—	20	3	12
Fuel.....	66	2	6	1	2
With water wheels and turbines.....	311	8	33	7	94
With steam engines only.....	46	—	5	6	1
With steam turbines only.....	16	—	6	1	1
With gas or oil engines only.....	201	2	7	4	1
With both steam engines and turbines.....	12	1	2	1	1
With both steam and gas or oil engines.....	1	—	—	—	—
With alternating current dynamos only.....	432	10	48	13	96
With direct current dynamos only.....	150	1	4	5	1
With both alternating and direct current dynamos....	5	—	1	1	1
<b>Commercial Organizations*.....</b>	<b>*373</b>	<b>8</b>	<b>32</b>	<b>23</b>	<b>62</b>
Number generating power.....	299	7	17	12	44
Number buying power for redistribution.....	74	1	15	11	18
<b>Municipalities*.....</b>	<b>*461</b>	<b>2</b>	<b>31</b>	<b>14</b>	<b>30</b>
Number generating power.....	87	2	14	4	10
Number buying power for redistribution.....	373	—	17	10	20
Auxiliary Plants.....	58	2	5	4	7
To Hydraulic Stations.....	44	2	3	—	7
To Non-generating Stations.....	14	—	2	4	—

\* Organizations operating in two or more provinces are not shown under provinces but are included in total.

Tableau 3—Usines génératrices, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
129	29	135	55	58	<b>Nombre d'usines génératrices.</b>
21-98	4-94	22-99	9-37	9-88	Pourcentage du total pour le Canada.
67	15	108	46	50	Usines commerciales.
63	3	—	5	33	Hydrauliques.
4	12	108	41	17	Thermiques.
62	14	27	9	8	Usines municipales.
58	2	—	1	4	Hydrauliques.
4	12	27	8	4	Thermiques.
121	5	—	6	37	Avec roues et turbines hydrauliques seulement.
6	4	2	14	8	Avec machines à vapeur seulement.
—	—	4	2	2	Avec turbines à vapeur seulement.
2	17	126	31	11	Avec moteurs à gaz ou à pétrole seulement.
—	2	3	2	—	Avec machines et turbines à vapeur à la fois.
—	1	—	—	—	Avec machines à vapeur, à gaz et à pétrole.
121	21	47	28	48	Avec dynamos à courant alternatif seulement.
8	7	88	26	10	Avec dynamos à courant direct seulement.
—	1	—	1	—	Avec dynamos à courant alternatif et direct.
56	15	86	46	42	<b>Usines commercialisées.*</b>
48	12	84	39	33	Nombre d'usines génératrices.
8	3	2	7	9	Nombre d'usines achetant de l'électricité pour la revendre.
312	18	22	15	16	<b>Municipalités.*</b>
19	11	15	6	6	Nombre d'usines génératrices.
293	7	7	9	10	Nombre d'usines achetant de l'électricité pour la revendre.
12	3	—	11	14	Usines auxiliaires.
9	3	—	9	11	Usines hydrauliques.
3	—	—	2	3	Usines non-génératrices.

\* Les organisations en exploitation dans deux provinces ou plus ne figurent pas sous les provinces, mais sont comprises dans le total.



Table 4.—Capital, 1930

	Canada	Prince Edward Island — Ile du Prince- Edouard	Nova Scotia — Nouvelle- Ecosse	New Brunswick — Nouveau- Brunswick	Quebec — Québec
<b>Total Capital</b> .....	\$ 1,138,200,016	\$ 802,711	\$ 25,805,233	\$ 27,278,902	\$ 445,381,055
Per cent of total for Canada.....	100.00	0.07	2.27	2.40	39.13
Generation.....	684,903,524	403,271	16,648,934	19,108,377	317,285,187
Transmission.....	189,842,922	—	2,984,555	3,226,543	63,559,340
Distribution.....	199,547,417	309,735	4,469,125	3,504,363	42,946,873
General.....	63,906,153	89,705	1,702,619	1,439,619	21,589,655
<b>Total Capital in Commercial Stations</b> .....	<b>723,890,071</b>	<b>651,660</b>	<b>10,139,026</b>	<b>20,885,701</b>	<b>437,402,409</b>
Generation.....	497,265,976	309,481	3,959,446	16,117,794	313,180,078
Transmission.....	103,050,408	—	1,704,128	2,130,167	63,291,358
Distribution.....	84,124,856	268,114	3,203,161	1,506,368	39,717,674
General.....	39,448,831	74,065	1,272,291	1,131,372	21,213,299
Non-Generating stations.....	41,689,988	6,000	1,062,217	1,363,023	13,820,831
Generating stations.....	682,200,083	645,660	9,076,809	19,522,678	423,581,578
Hydraulic stations.....	657,034,562	137,310	2,098,212	15,495,388	423,526,242
Fuel stations.....	25,165,521	508,350	6,978,597	4,027,290	55,336
<b>Total Capital in Municipal Stations</b> .....	<b>414,309,945</b>	<b>151,051</b>	<b>15,666,207</b>	<b>6,393,201</b>	<b>7,978,646</b>
Generation.....	187,637,548	93,790	12,689,488	2,990,583	4,105,100
Transmission.....	86,792,514	—	1,280,427	1,096,376	267,982
Distribution.....	115,422,561	41,621	1,265,964	1,997,995	3,229,199
General.....	24,457,322	15,640	430,328	308,247	376,356
Non-generating stations.....	100,808,743	—	999,360	1,421,296	1,114,202
Generating stations.....	313,501,202	151,051	14,666,847	4,971,905	6,844,444
Hydraulic stations.....	294,775,677	—	13,903,666	4,866,441	4,984,108
Fuel stations.....	18,725,525	151,051	763,181	105,464	1,880,336
<b>Total Capital in Non-generating Stations</b> .....	<b>112,498,731</b>	<b>6,000</b>	<b>2,061,577</b>	<b>2,784,319</b>	<b>14,935,033</b>
Generation.....	614,442	—	44,638	313,617	—
Transmission.....	9,395,776	—	12,923	234,649	3,777,667
Distribution.....	113,875,752	6,000	1,660,650	1,720,872	10,027,836
General.....	18,612,761	—	343,366	515,181	1,129,530
<b>Total Capital in Generating Stations</b> .....	<b>995,701,285</b>	<b>796,711</b>	<b>23,743,656</b>	<b>24,494,583</b>	<b>430,446,022</b>
Generation.....	684,289,082	403,271	16,604,296	18,794,760	317,285,187
Transmission.....	180,447,146	—	2,971,632	2,991,894	59,781,673
Distribution.....	85,671,665	303,735	2,808,475	1,783,491	32,919,037
General.....	45,293,392	89,705	1,359,253	924,438	20,460,125
Hydraulic stations.....	951,810,239	137,310	16,001,878	20,361,829	428,510,350
Generation.....	661,011,224	83,098	13,347,921	16,017,359	316,655,623
Transmission.....	175,019,954	—	1,584,909	2,991,894	59,781,673
Distribution.....	73,545,551	49,839	666,352	891,543	31,739,641
General.....	42,233,510	4,373	402,696	461,033	20,333,413
Fuel Stations.....	43,891,046	659,401	7,741,778	4,132,754	1,935,672
Generation.....	23,277,858	320,173	3,256,375	2,777,401	629,564
Transmission.....	5,427,192	—	1,386,723	—	—
Distribution.....	12,126,114	253,896	2,142,123	891,948	1,179,396
General.....	3,059,882	85,332	956,557	463,405	126,712
<b>TOTAL CAPITAL</b> .....					
Average per h.p. of Primary Power.....	211	207	218	256	192
Average per h.p. including auxiliary equipment.....	204	202	215	259	189
Average per K.V.A. of Dynamo Capacity.....	254	243	266	303	223
Average per K.V.A. including auxiliary equipment.....	246	243	263	298	220
<b>Generation</b>					
Average cost per h.p. (including auxiliary equip- ment)——					
In all generating stations.....	123	101	139	176	135
In Hydraulic stations.....	125	146	165	187	135
In Fuel stations.....	91	94	85	131	109
<b>Transmission Lines</b>					
Average per pole line mile.....	9,647	—	5,476	8,627	12,358
<b>Distribution Lines</b>					
Average per pole line mile.....	6,849	2,181	3,188	3,090	7,709

\*Capital invested in one hydraulic station in Saskatchewan included under Manitoba.

Tableau 4—Capitaux, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
\$	\$	\$	\$	\$	
440,872,470 38.73	*59,751,276 5.25	*22,925,271 2.01	27,525,124 2.42	87,857,974 7.72	<b>Total des capitaux.</b> Pourcentage du total pour le Canada.
228,093,182	31,243,844	11,098,443	13,205,334	47,816,952	Génération.
90,120,131	8,841,250	3,768,910	6,407,363	10,934,830	Transmission.
97,637,856	15,295,698	6,881,838	6,555,552	21,946,377	Distribution.
25,021,301	4,370,484	1,176,080	1,356,875	7,159,815	Généralités.
<b>105,055,785</b>	<b>32,101,405</b>	<b>19,673,374</b>	<b>21,155,740</b>	<b>85,824,971</b>	<b>Total des capitaux dans les usines commerciales.</b>
78,718,517	22,292,203	4,980,424	10,638,736	47,069,297	Génération.
13,281,242	3,493,370	2,031,078	6,263,927	10,855,138	Transmission.
7,192,519	5,318,621	2,980,778	3,127,776	20,809,845	Distribution.
5,863,507	997,211	681,094	1,125,301	7,090,691	Généralités.
1,682,653	842,944	1,757,120	103,414	21,051,786	Non-productrices.
103,373,132	31,258,461	8,916,254	21,052,326	64,773,185	Productrices.
103,339,346	29,615,114	—	18,484,283	64,338,667	Hydrauliques.
33,786	4,643,347	8,916,254	2,568,043	434,518	Thermiques.
<b>335,816,685</b>	<b>27,649,871</b>	<b>12,251,897</b>	<b>6,369,384</b>	<b>2,033,003</b>	<b>Total des capitaux dans les usines municipales.</b>
149,374,665	8,951,641	6,118,019	2,566,598	747,655	Génération.
76,838,889	5,347,880	1,737,832	143,436	79,692	Transmission.
90,445,337	9,977,077	3,901,060	3,427,776	1,136,532	Distribution.
19,157,794	3,373,273	494,986	231,574	69,124	Généralités.
89,210,572	3,303,308	1,797,461	2,013,882	948,662	Non-productrices.
246,606,113	24,346,563	10,454,436	4,355,502	1,084,341	Productrices.
246,442,687	23,368,634	—	237,480	972,661	Hydrauliques.
163,426	977,929	10,454,436	4,118,022	111,680	Thermiques.
<b>90,893,225</b>	<b>4,146,252</b>	<b>3,554,581</b>	<b>2,117,296</b>	<b>22,000,448</b>	<b>Total des capitaux dans les usines non-productrices.</b>
102,351	—	—	70,000	83,836	Génération.
1,115,337	1,966,331	821,405	81,303	1,386,161	Transmission.
78,363,168	1,757,619	2,405,033	1,927,023	16,007,551	Distribution.
11,312,369	422,302	328,143	38,970	4,522,900	Généralités.
<b>349,979,245</b>	<b>55,605,024</b>	<b>19,370,690</b>	<b>25,407,828</b>	<b>65,857,526</b>	<b>Total des capitaux dans les usines productrices.</b>
227,990,831	31,243,844	11,098,443	13,135,334	47,733,116	Génération.
89,004,794	6,874,919	2,947,505	6,326,060	9,548,669	Transmission.
19,274,688	13,538,079	4,476,805	4,628,529	5,938,826	Distribution.
13,708,932	3,948,182	847,937	1,317,905	2,636,915	Généralités.
349,782,033	52,983,748	—	18,721,763	65,311,328	Hydrauliques.
227,858,457	29,635,432	—	9,937,633	47,475,701	Génération.
89,004,794	6,635,905	—	5,516,246	9,504,533	Transmission.
19,223,580	12,887,074	—	2,356,560	5,730,962	Distribution.
13,695,202	3,825,337	—	911,324	2,600,132	Généralités.
197,212	2,621,276	19,370,690	6,686,065	546,198	Thermiques.
132,374	1,608,412	11,098,443	3,197,701	257,415	Génération.
—	239,014	2,947,505	809,814	44,136	Transmission.
51,108	651,005	4,476,805	2,271,969	207,864	Distribution.
13,730	122,845	847,937	406,581	36,783	Généralités.
<b>255</b>	<b>165</b>	<b>194</b>	<b>218</b>	<b>171</b>	<b>Moyenne par h.p. de la machinerie d'énergie primaire.</b>
<b>249</b>	<b>153</b>	<b>194</b>	<b>184</b>	<b>157</b>	<b>Moyenne par h.p. y compris machinerie auxiliaire.</b>
<b>315</b>	<b>209</b>	<b>224</b>	<b>268</b>	<b>223</b>	<b>Moyenne par K.V.A. de la capacité des dynamos.</b>
<b>307</b>	<b>192</b>	<b>224</b>	<b>224</b>	<b>203</b>	<b>Moyenne par K.V.A. y compris machinerie auxiliaire.</b>
<b>CAPITAL TOTAL</b>					
<b>Génération</b>					
<b>129</b>	<b>80</b>	<b>94</b>	<b>86</b>	<b>85</b>	<b>Moyenne par h.p. y compris machinerie auxiliaire—</b>
<b>129</b>	<b>78</b>	<b>—</b>	<b>108</b>	<b>85</b>	<b>Dans les usines productrices.</b>
<b>131</b>	<b>169</b>	<b>94</b>	<b>57</b>	<b>95</b>	<b>Dans les usines hydrauliques.</b>
<b>Lignes de transmission</b>					
<b>13,734</b>	<b>6,068</b>	<b>1,785</b>	<b>2,886</b>	<b>8,637</b>	<b>Moyenne par mille de ligne sur poteaux.</b>
<b>Lignes de distribution</b>					
<b>7,045</b>	<b>10,259</b>	<b>6,200</b>	<b>4,417</b>	<b>7,460</b>	<b>Moyenne par mille de lignes sur poteaux.</b>

\* Le capital employé d'une usine hydraulique en Saskatchewan est compris dans Manitoba.

Table 5—Revenue, 1930

	Canada	Prince Edward Island  Ile du Prince- Edouard	Nova Scotia — Nouvelle- Ecosse	New Brunswick — Nouveau- Brunswick	Quebec — Québec
REVENUES	\$	\$	\$	\$	\$
<b>Revenue from Sale of Electric Energy.....</b>	<b>126,038,145</b>	<b>227,177</b>	<b>3,675,905</b>	<b>2,806,573</b>	<b>43,201,265</b>
Per cent of total for Canada.....	100.00	0.18	2.91	2.23	34.28
For domestic service.....	34,114,680	112,566	1,097,500	839,395	8,082,058
For commercial light.....	20,618,891	66,164	721,207	456,236	5,383,910
For power (small).....	4,875,661	27,272	417,871	199,059	2,002,926
For power (large).....	61,842,340	4,399	1,249,669	1,203,971	26,547,666
For street lighting.....	4,586,573	16,776	189,658	107,912	1,184,705
<b>Revenue of Commercial Stations.....</b>	<b>73,261,572</b>	<b>177,820</b>	<b>2,121,657</b>	<b>2,019,945</b>	<b>41,778,839</b>
Non-generating.....	5,253,828	525	215,462	253,928	913,121
Generating.....	68,007,744	177,295	1,906,195	1,766,017	40,865,718
Hydraulic.....	62,907,054	27,110	293,532	1,106,491	40,847,913
Fuel.....	5,100,690	150,185	1,612,663	659,526	17,805
<b>Revenue of Municipal Stations.....</b>	<b>52,776,573</b>	<b>49,357</b>	<b>1,554,248</b>	<b>786,628</b>	<b>1,422,426</b>
Non-generating.....	16,151,777	—	245,698	303,224	322,114
Generating.....	36,624,796	49,357	1,308,550	483,404	1,100,312
Hydraulic.....	31,631,643	—	1,039,933	452,338	746,545
Fuel.....	4,993,153	49,357	268,617	31,066	353,767
<b>Revenue of Non-generating Stations.....</b>	<b>21,405,605</b>	<b>525</b>	<b>461,160</b>	<b>557,152</b>	<b>1,235,235</b>
<b>Revenue of Generating Stations.....</b>	<b>104,632,540</b>	<b>226,652</b>	<b>3,214,745</b>	<b>2,249,421</b>	<b>41,966,030</b>
<b>Revenue of Hydraulic Stations.....</b>	<b>94,538,697</b>	<b>27,110</b>	<b>1,333,465</b>	<b>1,558,829</b>	<b>41,594,458</b>
<b>Revenue of Fuel Stations.....</b>	<b>10,093,843</b>	<b>199,542</b>	<b>1,881,280</b>	<b>690,592</b>	<b>371,572</b>
<b>Average net revenue per h.p. of Primary Power.....</b>	<b>23.34</b>	<b>58.60</b>	<b>31.00</b>	<b>26.29</b>	<b>18.61</b>
<b>Average net revenue per h.p. in main and auxiliary plants.....</b>	<b>22.62</b>	<b>57.05</b>	<b>30.61</b>	<b>25.70</b>	<b>18.37</b>
<b>Average net revenue per K.V.A. of dynamo capacity ..</b>	<b>28.17</b>	<b>68.90</b>	<b>37.92</b>	<b>31.19</b>	<b>21.62</b>
<b>Average net revenue per K.V.A. in main and auxiliary plants.....</b>	<b>27.28</b>	<b>68.90</b>	<b>37.47</b>	<b>30.61</b>	<b>21.35</b>
<b>Average net revenue per k.w.hr. of all stations (cents)</b>	<b>0.70</b>	<b>6.33</b>	<b>1.64</b>	<b>0.84</b>	<b>0.49</b>
<b>Average net revenue per domestic service customer...</b>	<b>25.90</b>	<b>29.74</b>	<b>25.70</b>	<b>25.89</b>	<b>21.57</b>
<b>Average net revenue per commercial light customer...</b>	<b>86.33</b>	<b>72.39</b>	<b>91.49</b>	<b>80.64</b>	<b>77.83</b>
<b>Average net revenue per small power customer.....</b>	<b>196.31</b>	<b>194.80</b>	<b>260.84</b>	<b>197.28</b>	<b>208.77</b>
<b>Average net revenue per large power customer.....</b>	<b>2,458.94</b>	<b>2,199.50</b>	<b>10,773.01</b>	<b>9,709.44</b>	<b>11,587.81</b>
<b>Average net revenue per k.w.hr.—Domestic and farm services (cents).....</b>	<b>2.29</b>	<b>9.62</b>	<b>6.89</b>	<b>5.33</b>	<b>3.93</b>
<b>Average net revenue per k.w.hr.—Commercial light (cents).....</b>	<b>2.77</b>	<b>8.01</b>	<b>6.29</b>	<b>4.18</b>	<b>3.47</b>



Tableau 5—Recettes, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
\$	\$	\$	\$	\$	RECETTES
49,371,901 39-17	6,574,463 5-22	4,711,212 3-74	4,651,870 3-69	10,817,779 8-58	Recettes provenant de la vente d'électricité. Pourcentage du total pour le Canada.
14,733,013 7,543,243 611,108 24,617,316 1,867,221	2,680,036 1,521,024 344,853 1,808,067 220,483	1,905,257 1,344,495 647,774 534,119 279,567	1,674,340 1,225,181 459,099 996,318 296,932	2,990,515 2,357,431 165,699 4,880,815 423,319	Pour service domestique. Pour éclairage commercial. Pour force motrice (petits abonnés). Pour force motrice (gros abonnés). Pour éclairage des rues.
9,628,877	3,291,467	1,800,806	2,220,623	10,221,538	Recettes des usines commerciales.
49,151 9,579,726 9,569,524 10,202	109,311 3,182,156 2,887,059 295,097	141,775 1,659,031 — 1,659,031	54,177 2,166,446 1,607,562 558,884	3,516,378 6,705,160 6,567,863 137,297	Non-productrices. Productrices. Hydrauliques. Thermiques.
39,743,024	3,282,996	2,910,406	2,431,247	596,241	Recettes des usines municipales.
13,171,640 26,571,384 26,517,014 54,370	344,239 2,938,757 2,643,008 295,749	578,874 2,331,532 — 2,331,532	866,101 1,565,146 30,934 1,534,212	319,887 276,354 201,871 74,483	Non-productrices. Productrices. Hydrauliques. Thermiques.
13,220,791	453,550	720,649	920,278	3,836,265	Recettes des usines non génératrices.
36,151,110	6,120,913	3,990,563	3,731,592	6,981,514	Recettes des usines génératrices.
36,086,538	5,530,067	—	1,638,496	6,769,734	Recettes des usines hydrauliques.
64,572	590,846	3,990,563	2,093,096	211,780	Recettes des usines thermiques.
28-53	18-14	39-78	36-92	21-11	Moyenne des recettes nettes par h.p. de machinerie primaire dans les usines principales.
27-88	16-88	39-78	31-16	19-32	Moyenne des recettes nettes par h.p. de machinerie principale et auxiliaire.
35-24	22-95	46-08	45-34	27-42	Moyenne des recettes nettes par K.V.A. de la capacité des dynamos des usines principales.
34-42	21-10	46-08	37-91	24-99	Moyenne des recettes nettes par K.V.A. de la capacité des dynamos principales et auxiliaires.
0-80	0-66	3-43	2-28	0-89	Moyenne des recettes nettes par K.W. Heure (cents) de toutes les usines.
26-16	37-02	41-62	29-28	23-89	Moyenne des recettes nettes par abonnés de service domestique.
84-37	99-35	88-89	80-90	116-58	Moyenne des recettes nettes par abonné d'éclairage commercial.
288-94	134-66	224-07	127-67	124-77	Moyenne des recettes nettes par petits abonnés pour force motrice.
1,593-46	737-99	3,256-82	2,678-27	1,167-10	Moyenne des recettes nettes par gros abonnés pour force motrice.
1-75	1-10	5-39	5-50	2-94	Moyenne des recettes nettes par K.W. Heure pour service domestique et dans les fermes (cents).
2-15	1-75	6-58	5-74	2-70	Moyenne des recettes nettes par K.W. Heure pour éclairage commercial (cents).

## CENSUS OF INDUSTRY

Table 6—Expenses, 1930

	Canada	Prince Edward Island  Ile du Prince- Edouard	Nova Scotia  Nouvelle- Ecosse	New Brunswick  Nouveau- Brunswick	Quebec  Québec
	\$	\$	\$	\$	\$
<b>Total expenses</b> .....	<b>74,209,469</b>	<b>105,147</b>	<b>2,312,626</b>	<b>1,405,203</b>	<b>15,526,783</b>
Per cent of total for Canada.....	100-00	0-14	3-12	1-89	20-92
Salaries and wages.....	27,287,443	52,325	956,622	479,193	6,541,919
Fuel.....	2,594,879	46,563	366,903	175,076	52,750
Taxes.....	5,531,379	5,733	232,107	75,789	2,748,678
Cost of power.....	38,795,768	526	756,994	675,145	6,183,436
<b>Total for Commercial Stations</b> .....	<b>33,712,063</b>	<b>86,844</b>	<b>1,652,214</b>	<b>824,796</b>	<b>14,731,792</b>
Salaries and wages.....	13,072,463	44,098	608,957	317,395	6,215,197
Fuel.....	1,357,841	36,487	307,799	163,176	5,204
Taxes.....	4,927,967	5,733	229,696	75,382	2,738,325
Cost of power.....	14,353,792	526	505,762	268,843	5,773,066
Non-generating.....	6,268,795	526	246,738	380,435	797,421
Generating stations.....	27,443,268	86,318	1,405,476	444,361	13,934,371
Hydraulic stations.....	24,329,024	7,966	133,143	100,500	13,928,779
Fuel stations.....	3,114,244	78,352	1,272,333	343,861	5,592
<b>Total for Municipal Stations</b> .....	<b>40,497,406</b>	<b>18,303</b>	<b>660,412</b>	<b>580,407</b>	<b>794,991</b>
Salaries and wages.....	14,214,980	8,227	347,665	161,798	326,722
Fuel.....	1,237,038	10,076	59,104	11,900	47,546
Taxes.....	603,412	—	2,411	407	10,353
Cost of power.....	24,441,976	—	251,232	406,302	410,370
Non-generating stations.....	27,294,015	—	302,440	366,331	286,907
Generating stations.....	13,203,391	18,303	357,972	214,076	508,084
Hydraulic stations.....	10,677,754	—	213,025	197,312	155,365
Fuel stations.....	2,525,637	18,303	144,947	16,764	352,719
<b>Total Expenses for Non-generating Stations</b> .....	<b>33,562,810</b>	<b>526</b>	<b>549,178</b>	<b>746,766</b>	<b>1,084,328</b>
Salaries and wages.....	8,333,055	—	134,273	174,425	359,375
Fuel.....	33,253	—	2,119	502	—
Taxes.....	552,987	—	17,423	31,530	15,083
Cost of power.....	24,643,515	526	395,363	540,309	709,870
<b>Total Expenses for Generating Stations</b> .....	<b>40,646,659</b>	<b>104,621</b>	<b>1,763,448</b>	<b>658,437</b>	<b>14,442,455</b>
Salaries and wages.....	18,954,388	52,325	822,349	304,768	6,182,544
Fuel.....	2,561,626	46,563	364,784	174,574	52,750
Taxes.....	4,978,392	5,733	214,684	44,259	2,733,595
Cost of power.....	14,152,253	—	361,631	134,836	5,473,566
Hydraulic stations.....	35,006,778	7,966	346,168	297,812	14,084,144
Fuel stations.....	5,639,881	96,655	1,417,280	360,625	358,311

Tableau 6—Dépenses, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
\$	\$	\$	\$	\$	
38,596,341 52.01	3,628,024 4.89	2,949,313 3.97	2,579,352 3.48	7,106,680 9.58	<b>Total des dépenses</b> Pourcentage du total pour le Canada.
12,138,712	2,069,646	1,030,976	1,205,586	2,812,464	Salaires et gages.
170,693	229,189	1,046,252	298,245	209,208	Combustible.
1,293,819	188,599	112,674	186,893	687,287	Taxes.
24,993,117	1,140,790	759,411	888,628	3,397,721	Achat d'énergie électrique.
<b>5,960,246</b>	<b>1,831,672</b>	<b>960,672</b>	<b>947,029</b>	<b>6,716,798</b>	<b>Total pour les usines commerciales.</b>
1,515,501	709,352	418,154	582,932	2,660,877	Salaires et gages.
26,419	152,380	371,259	102,825	192,292	Combustible.
875,276	143,299	60,949	112,020	687,287	Taxes.
3,543,050	826,641	110,310	149,252	3,176,342	Achat d'énergie électrique.
1,330,663	245,553	119,378	46,377	3,101,704	Usines non-productrices.
4,629,583	1,586,119	841,294	900,652	3,615,094	Usines productrices.
4,624,825	1,358,598	—	633,209	3,542,004	Usines hydrauliques.
4,758	227,521	841,294	267,443	73,090	Usines thermiques.
<b>32,636,095</b>	<b>1,796,352</b>	<b>1,988,641</b>	<b>1,632,323</b>	<b>389,882</b>	<b>Total pour les usines municipales.</b>
10,623,211	1,360,294	612,822	622,654	151,587	Salaires et gages.
144,274	76,809	674,993	195,420	16,916	Combustible.
418,543	45,100	51,725	74,873	—	Taxes.
21,450,067	314,149	649,101	739,376	221,379	Achat d'énergie électrique.
23,940,385	308,507	848,564	953,655	287,226	Usines non-productrices.
8,695,710	1,487,845	1,140,077	678,668	102,656	Usines productrices.
8,677,650	1,355,612	—	9,625	69,165	Usines hydrauliques.
18,060	132,233	1,140,077	669,043	33,491	Usines thermiques.
<b>25,271,048</b>	<b>554,060</b>	<b>967,942</b>	<b>1,000,032</b>	<b>3,388,930</b>	<b>Total des dépenses pour les usines non-productrices</b>
5,783,861	237,216	153,180	251,313	1,239,412	Salaires et gages.
—	—	30,632	—	—	Combustible.
114,176	13,486	54,292	57,640	249,357	Taxes.
19,373,011	303,358	729,838	691,079	1,900,161	Achat d'énergie électrique.
<b>13,325,293</b>	<b>3,073,964</b>	<b>1,981,371</b>	<b>1,579,320</b>	<b>3,717,750</b>	<b>Total des dépenses pour les usines productrices</b>
6,354,851	1,832,430	877,796	954,273	1,573,052	Salaires et gages.
170,693	229,189	1,015,620	298,245	209,208	Combustible.
1,179,643	174,913	58,382	129,253	437,930	Taxes.
5,620,106	837,432	29,573	197,549	1,497,560	Achat d'énergie électrique.
13,302,475	2,714,210	—	642,834	3,611,169	Usines hydrauliques.
22,818	359,754	1,981,371	936,486	106,581	Usines thermiques.



## CENSUS OF INDUSTRY

Table 7—Employees, 1930

	Canada	Prince Edward Island — Ile du Prince- Edouard	Nova Scotia — Nouvelle Ecosse	New Brunswick — Nouveau Brunswick	Quebec — Québec
	\$	\$	\$	\$	\$
<b>Total number of Persons Employed</b> .....	<b>17,857</b>	<b>48</b>	<b>760</b>	<b>420</b>	<b>4,444</b>
Per cent of total for Canada.....	100.00	0.27	4.26	2.35	24.89
Officers, clerks, other salaried employees, etc.....	7,165	18	287	218	1,740
Employees on wages.....	10,692	30	473	202	2,704
<b>Total employees in Commercial Stations</b> .....	<b>8,937</b>	<b>41</b>	<b>484</b>	<b>289</b>	<b>4,214</b>
Officers, clerks, other salaried employees, etc.....	3,408	15	200	130	1,650
Employees on wages.....	5,529	26	284	159	2,564
Non-generating.....	1,226	—	73	101	290
Generating.....	7,711	41	411	188	3,924
Hydraulic.....	6,656	10	77	59	3,921
Fuel.....	1,055	31	334	129	3
<b>Total employees in Municipal Stations</b> .....	<b>8,920</b>	<b>7</b>	<b>276</b>	<b>131</b>	<b>230</b>
Officers, clerks, other salaried employees, etc.....	3,757	3	87	88	90
Employees on wages.....	5,163	4	189	43	140
Non-generating.....	4,473	—	68	75	45
Generating.....	4,447	7	208	56	185
Hydraulic.....	3,687	—	153	51	106
Fuel.....	760	7	55	5	79
<b>Total employees in Non-generating Stations</b> .....	<b>5,699</b>	<b>—</b>	<b>141</b>	<b>176</b>	<b>335</b>
Officers, clerks, other salaried employees, etc.....	2,620	—	65	88	161
Employees on wages.....	3,079	—	76	88	174
<b>Total employees in Generating Stations</b> .....	<b>12,158</b>	<b>48</b>	<b>619</b>	<b>244</b>	<b>4,109</b>
Officers, clerks, other salaried employees, etc.....	4,545	18	222	130	1,579
Employees on wages.....	7,613	30	397	114	2,530
Hydraulic.....	10,343	10	230	110	4,027
Fuel.....	1,815	38	389	134	82

## CENTRAL ELECTRIC STATIONS

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Tableau 7—Personnel, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
\$	\$	\$	\$	\$	
7,362	1,529	754	775	1,765	<b>Total du personnel occupé.</b>
41.23	8.56	4.22	4.34	9.88	Pourcentage du total pour le Canada.
3,124	476	356	307	639	Administrateurs, directeurs, commis et tous employés des bureaux.
4,238	1,053	398	468	1,126	Employés à gages.
<b>1,045</b>	<b>468</b>	<b>347</b>	<b>417</b>	<b>1,632</b>	<b>Personnel des usines commerciales.</b>
371	134	188	152	568	Administrateurs, directeurs, commis et tous employés des bureaux.
674	334	159	265	1,064	Employés à gages.
20	38	20	9	675	Non-productrices.
1,025	430	327	408	957	Productrices.
1,020	367	—	284	918	Hydrauliques.
5	63	327	124	39	Thermiques.
<b>6,317</b>	<b>1,061</b>	<b>407</b>	<b>358</b>	<b>133</b>	<b>Personnel des usines municipales.</b>
2,753	342	168	155	71	Administrateurs, directeurs, commis et tous employés des bureaux.
3,564	719	239	203	62	Employés à gages.
3,787	228	78	135	57	Non-productrices.
2,530	833	329	223	76	Productrices.
2,520	779	—	13	65	Hydrauliques.
10	54	329	210	11	Thermiques.
<b>3,807</b>	<b>266</b>	<b>98</b>	<b>144</b>	<b>732</b>	<b>Total du personnel des usines non-productrices.</b>
1,739	33	51	78	405	Administrateurs, directeurs, commis et tous employés des bureaux.
2,068	233	47	66	327	Employés à gages.
<b>3,555</b>	<b>1,263</b>	<b>656</b>	<b>631</b>	<b>1,033</b>	<b>Total du personnel des usines productrices.</b>
1,385	443	305	229	234	Administrateurs, directeurs, commis et tous employés des bureaux.
2,170	820	351	402	799	Employés à gages.
3,540	1,146	—	297	983	Hydrauliques.
15	117	656	334	50	Thermiques.

Table 8—Number of Customers, 1930

	Canada	Prince Edward Island — Île du Prince Edouard	Nova Scotia — Nouvelle- Ecosse	New Brunswick — Nouveau- Brunswick	Quebec
<b>Number of Customers</b> .....	<b>1,607,766</b>	<b>4,848</b>	<b>52,375</b>	<b>39,254</b>	<b>456,405</b>
Per cent of total for Canada.....	100.00	0.30	3.26	2.44	28.39
Domestic Service.....	1,317,324	3,785	42,703	32,426	374,725
Commercial light.....	238,847	914	7,883	5,658	69,179
Power (small).....	24,836	140	1,602	1,009	9,594
Power (large).....	25,150	2	116	124	2,291
Street lighting.....	1,609	7	71	37	616
<b>Total Number of Customers of Commercial Stations..</b>	<b>745,608</b>	<b>3,896</b>	<b>34,859</b>	<b>20,217</b>	<b>416,496</b>
Domestic service.....	598,499	3,048	28,392	15,812	340,034
Commercial light.....	121,678	752	5,392	3,639	64,950
Power (small).....	14,906	90	965	700	8,686
Power (large).....	9,416	1	65	47	2,239
Street lighting.....	1,109	5	45	19	587
Non-generating.....	154,687	45	9,146	9,893	29,007
Generating.....	590,921	3,851	25,713	10,324	387,489
Hydraulic.....	517,494	969	4,138	276	387,149
Fuel.....	73,427	2,882	21,575	10,048	343
<b>Total Number of Customers of Municipal Stations...</b>	<b>862,158</b>	<b>952</b>	<b>17,516</b>	<b>19,037</b>	<b>39,909</b>
Domestic service.....	718,825	737	14,311	16,614	34,691
Commercial light.....	117,169	162	2,491	2,019	4,229
Power (small).....	9,930	50	637	309	908
Power (large).....	15,734	1	51	77	52
Street lighting.....	500	2	26	18	29
Non-generating.....	638,811	—	9,274	13,199	15,464
Generating.....	223,347	952	8,242	5,838	24,445
Hydraulic.....	149,465	—	2,459	5,222	15,045
Fuel.....	73,882	952	5,783	616	9,400
<b>Total Number of Customers of Non-generating Sta- tions.....</b>	<b>793,498</b>	<b>45</b>	<b>18,420</b>	<b>23,092</b>	<b>44,471</b>
Domestic service.....	659,766	40	15,125	19,029	37,739
Commercial light.....	110,739	5	2,441	3,395	5,750
Power (small).....	5,680	—	792	570	772
Power (large).....	16,688	—	34	77	60
Street lighting.....	625	—	28	21	150
<b>Total Number of Customers of Generating Stations..</b>	<b>814,268</b>	<b>4,803</b>	<b>33,955</b>	<b>16,162</b>	<b>411,934</b>
Hydraulic stations.....	666,959	969	6,597	5,498	402,191
Domestic service.....	546,501	811	5,279	5,164	328,141
Commercial light.....	98,053	143	1,023	247	62,787
Power (small).....	13,707	10	211	53	8,579
Power (large).....	7,981	1	58	26	2,221
Street lighting.....	717	4	26	8	463
Fuel Stations.....	147,309	3,834	27,358	10,664	9,743
Domestic service.....	111,057	2,934	22,299	8,233	8,845
Commercial light.....	30,055	766	4,419	2,016	642
Power (small).....	5,449	130	599	386	243
Power (large).....	481	1	24	21	10
Street lighting.....	267	3	17	8	3
<b>Average Number of Domestic Service Customers per 100 of Population</b> .....	<b>12.83</b>	<b>4.30</b>	<b>8.26</b>	<b>7.93</b>	<b>13.19</b>

\* Large power customers for Ontario include both large and small customers of municipalities served by the provincial commission.



Tableau 8—Consommateurs, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
<b>670,502</b> 41.70	<b>92,789</b> 5.77	<b>64,150</b> 3.99	<b>76,472</b> 4.76	<b>150,971</b> 9.39	<b>Nombre de consommateurs.</b> Pourcentage du total pour le Canada.
563,152	72,395	45,777	57,190	125,171	Pour service domestique.
89,410	15,310	15,126	15,145	20,222	Pour éclairage commercial.
2,115	2,561	2,891	3,596	1,328	Pour petite force motrice.
15,449	2,450	164	372	4,182	Pour grosse force motrice.
376	73	192	169	68	Pour éclairage des rues.
<b>54,293</b>	<b>31,800</b>	<b>25,570</b>	<b>25,159</b>	<b>133,318</b>	<b>Nombre total de consommateurs des usines commerciales.</b>
43,276	23,700	17,103	16,402	110,732	Pour service domestique.
8,701	6,428	7,330	6,966	17,520	Pour éclairage commercial.
582	582	946	1,504	851	Pour petite force motrice.
1,675	1,071	19	136	4,163	Pour grosse force motrice.
59	19	172	151	52	Pour éclairage des rues.
1,098	4,896	3,042	1,487	96,073	Non-productrices.
53,195	26,904	22,528	23,672	37,245	Productrices.
53,000	22,092	—	14,848	35,025	Hydrauliques.
195	4,812	22,528	8,824	2,220	Thermiques.
<b>616,209</b>	<b>60,989</b>	<b>38,580</b>	<b>51,313</b>	<b>17,653</b>	<b>Nombre total de consommateurs des usines municipales.</b>
519,876	48,695	28,674	40,788	14,439	Pour service domestique.
80,709	8,882	7,796	8,179	2,702	Pour éclairage commercial.
1,533	1,979	1,945	2,092	477	Pour petite force motrice.
13,774	1,379	145	236	19	Pour grosse force motrice.
317	54	20	18	16	Pour éclairage des rues.
542,366	6,889	14,522	24,292	12,805	Non-productrices.
73,843	54,100	24,058	27,021	4,848	Productrices.
73,118	49,286	—	730	3,605	Hydrauliques.
725	4,814	24,058	26,291	1,243	Thermiques.
<b>543,464</b>	<b>11,785</b>	<b>17,564</b>	<b>25,779</b>	<b>108,878</b>	<b>Nombre des abonnés des usines non-productrices.</b>
453,225	9,321	12,900	21,551	90,836	Pour service domestique.
76,672	1,846	3,680	3,097	13,853	Pour éclairage commercial.
612	567	901	1,068	398	Pour petite force motrice.
12,667	16	27	49	3,758	Pour grosse force motrice.
288	35	56	14	33	Pour éclairage des rues.
<b>127,038</b>	<b>81,004</b>	<b>46,586</b>	<b>50,693</b>	<b>42,093</b>	<b>Nombre total de consommateurs des usines productrices.</b>
126,118	71,378	—	15,578	38,630	Hydrauliques.
109,152	56,134	—	10,129	31,691	Pour service domestique.
12,607	11,242	—	4,322	5,682	Pour éclairage commercial.
1,496	1,617	—	930	811	Pour petite force motrice.
2,779	2,374	—	101	421	Pour grosse force motrice.
84	11	—	96	25	Pour éclairage des rues.
920	9,626	46,586	35,115	3,463	A combustible.
775	6,940	32,877	25,510	2,644	Pour service domestique.
131	2,222	11,446	7,726	687	Pour éclairage commercial.
7	377	1,990	1,598	119	Pour petite force motrice.
3	60	137	222	3	Pour grosse force motrice.
4	27	136	59	10	Pour éclairage des rues.
<b>16.55</b>	<b>10.37</b>	<b>5.01</b>	<b>8.01</b>	<b>18.35</b>	<b>Moyenne des consommateurs d'éclairage électrique par 100 habitants.</b>

\* Dans l'Ontario les gros consommateurs d'énergie comprennent les gros et petits consommateurs des municipalités desservies par la commission provinciale.

## CENSUS OF INDUSTRY

Table 9—Pole Line Mileage, 1930

	Canada	Prince Edward Island — Ile du Prince Edouard	Nova Scotia — Nouvelle- Ecosse	New Brunswick — Nouveau- Brunswick	Quebec
<b>Pole Line Mileage</b> .....	<b>48,814</b>	<b>142</b>	<b>1,947</b>	<b>1,508</b>	<b>10,714</b>
Per cent of total for Canada.....	100.00	0.29	3.99	3.09	21.95
For transmission.....	19,679	—	545	374	5,143
For distribution.....	29,135	142	1,402	1,134	5,571
<b>Total Pole Line Mileage—Commercial Stations</b> .....	<b>23,614</b>	<b>124</b>	<b>1,189</b>	<b>633</b>	<b>10,231</b>
Non-generating.....	4,820	7	262	231	1,737
Generating.....	18,794	117	927	402	8,494
Hydraulic.....	16,165	71	512	152	8,484
Fuel.....	2,629	46	415	250	10
<b>Total Pole Line Mileage—Municipal Stations</b> .....	<b>25,200</b>	<b>18</b>	<b>758</b>	<b>875</b>	<b>483</b>
Non-generating.....	8,287	—	263	221	178
Generating.....	16,913	18	495	654	305
Hydraulic.....	14,691	—	399	634	241
Fuel.....	2,222	18	96	20	64
<b>Total Pole Line Mileage—Non-generating Stations</b> .....	<b>13,107</b>	<b>7</b>	<b>525</b>	<b>452</b>	<b>1,915</b>
<b>Total Pole Line Mileage—Generating Stations</b> .....	<b>35,707</b>	<b>135</b>	<b>1,422</b>	<b>1,056</b>	<b>8,799</b>
Hydraulic stations.....	30,856	71	911	786	8,725
Fuel stations.....	4,851	64	511	270	74

Table 10—Auxiliary Plant Equipment, 1930

<b>Total Primary Power</b> .....	<b>H.P.</b> .....	<b>171,453</b>	<b>105</b>	<b>1,493</b>	<b>2,425</b>	<b>29,573</b>
Per cent of total for Canada.....		100.00	0.06	0.87	1.41	17.25
Steam reciprocating engines.....	No.....	47	1	7	7	4
Total capacity.....	H.P.....	14,966	75	1,148	1,850	2,750
Steam turbines.....	No.....	39	—	—	—	6
Total capacity.....	H.P.....	148,799	—	—	—	25,500
Gas and oil engines.....	No.....	36	1	2	3	4
Total capacity.....	H.P.....	7,688	30	345	575	1,323
<b>Total Secondary Power</b> .....	<b>K.V.A.</b> .....	<b>145,678</b>	<b>—</b>	<b>1,167</b>	<b>1,705</b>	<b>25,797</b>
<b>Commercial Stations</b>						
<b>Total Primary Power</b> .....	<b>H.P.</b> .....	<b>119,655</b>	<b>105</b>	<b>890</b>	<b>1,525</b>	<b>29,573</b>
Steam reciprocating engines.....	No.....	33	1	5	5	4
Total capacity.....	H.P.....	10,743	75	725	1,475	2,750
Steam turbines.....	No.....	31	—	—	—	6
Total capacity.....	H.P.....	103,709	—	—	—	25,500
Gas and oil engines.....	No.....	25	1	1	1	4
Total capacity.....	H.P.....	5,203	30	165	50	1,323
<b>Total Secondary Power</b> .....	<b>K.V.A.</b> .....	<b>101,718</b>	<b>—</b>	<b>691</b>	<b>1,108</b>	<b>25,797</b>
<b>Municipal Stations</b>						
<b>Total Primary Power</b> .....	<b>H.P.</b> .....	<b>51,798</b>	<b>—</b>	<b>603</b>	<b>900</b>	<b>—</b>
Steam reciprocating engines.....	No.....	14	—	2	2	—
Total capacity.....	H.P.....	4,223	—	423	375	—
Steam turbines.....	No.....	8	—	—	—	—
Total capacity.....	H.P.....	45,090	—	—	—	—
Gas and oil engines.....	No.....	11	—	1	2	—
Total capacity.....	H.P.....	2,485	—	180	525	—
<b>Total Secondary Power</b> .....	<b>K.V.A.</b> .....	<b>43,960</b>	<b>—</b>	<b>476</b>	<b>597</b>	<b>—</b>

Tableau 9—Longueur (en milles) des lignes sur poteaux, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
<b>20,421</b> 41-83	<b>2,948</b> 6-04	<b>3,222</b> 6-60	<b>3,704</b> 7-59	<b>4,208</b> 8-62	<b>Longueur totale en milles des lignes sur poteaux.</b> Pourcentage du total pour le Canada.
6,562 13,859	1,457 1,491	2,112 1,110	2,220 1,484	1,266 2,942	Pour la transmission. Pour la distribution.
<b>2,070</b> 95 1,975 1,969 6	<b>1,066</b> 177 889 770 119	<b>1,607</b> 648 959 — 959	<b>2,972</b> 36 2,936 2,209 727	<b>3,722</b> 1,627 2,095 1,998 97	<b>Pour le service des usines commerciales.</b> Non-productrices. Productrices. Hydrauliques. Thermiques.
<b>18,351</b> 5,669 12,682 12,658 24	<b>1,882</b> 1,068 814 632 182	<b>1,615</b> 176 1,439 — 1,439	<b>732</b> 357 375 16 359	<b>486</b> 355 131 111 20	<b>Pour le service des usines municipales.</b> Non-productrices. Productrices. Hydrauliques. Thermiques.
<b>5,764</b>	<b>1,245</b>	<b>824</b>	<b>393</b>	<b>1,982</b>	<b>Pour le service des usines non-productrices.</b>
<b>14,657</b>	<b>1,703</b>	<b>2,398</b>	<b>3,311</b>	<b>2,226</b>	<b>Pour le service des usines productrices.</b>
14,627 30	1,402 301	— 2,398	2,225 1,086	2,109 117	Hydrauliques. Thermiques.

Tableau 10—Machines des usines auxiliaires, 1930

<b>40,225</b> 23-46	<b>26,980</b> 15-74	—	<b>23,298</b> 13-59	<b>47,354</b> 27-62	<b>Total force motrice primaire..... H.P.</b> Pourcentage du total pour le Canada.
9 2,900 6 36,500 5 825	— — 6 26,740 2 240	— — — — — —	16 5,268 5 16,250 8 1,780	3 975 16 43,809 11 2,570	Machines à vapeur..... Nomb. Capacité totale..... H.P. Turbines à vapeur..... Nomb. Capacité totale..... H.P. Moteurs à explosions..... Nomb. Capacité totale..... H.P.
<b>33,447</b>	<b>25,163</b>	—	<b>20,103</b>	<b>38,296</b>	<b>Machinerie développant la force motrice secondaire..... K.V.A.</b>
<b>Usines Commerciales</b>					
<b>7,125</b>	<b>12,000</b>	—	<b>22,358</b>	<b>46,079</b>	<b>Total force motrice primaire..... H.P.</b>
2 450 2 6,300 3 375	— — 3 12,000 — —	— — — — — —	15 4,818 5 16,250 5 1,290	1 450 15 43,659 10 1,970	Machines à vapeur..... Nomb. Capacité totale..... H.P. Turbines à vapeur..... Nomb. Capacité totale..... H.P. Moteurs à explosions..... Nomb. Capacité totale..... H.P.
<b>6,294</b>	<b>11,250</b>	—	<b>19,325</b>	<b>37,253</b>	<b>Machinerie développant la force motrice secondaire..... K.V.A.</b>
<b>Usines municipales</b>					
<b>33,100</b>	<b>14,980</b>	—	<b>940</b>	<b>1,275</b>	<b>Total force motrice primaire..... H.P.</b>
7 2,450 4 30,200 2 450	— — 3 14,740 2 240	— — — — — —	1 450 — — 3 490	2 525 1 150 1 600	Machines à vapeur..... Nomb. Capacité totale..... H.P. Turbines à vapeur..... Nomb. Capacité totale..... H.P. Moteurs à explosions..... Nomb. Capacité totale..... H.P.
<b>27,153</b>	<b>13,913</b>	—	<b>778</b>	<b>1,043</b>	<b>Machinerie développant la force motrice secondaire..... K.V.A.</b>



Table 11—Total Equipment Including Auxiliary Plant Equipment, 1930

		Canada	Prince Edward Island — Ile du Prince Edouard	Nova Scotia — Nouvelle- Ecosse	New Brunswick — Nouveau- Brunswick	Quebec
<b>Total Primary Power.....</b>	<b>H.P.....</b>	<b>5,572,561</b>	<b>3,982</b>	<b>120,082</b>	<b>109,185</b>	<b>2,351,366</b>
Per cent of total for Canada.....		100-00	0-07	2-15	1-96	42-20
Water wheels and turbines.....	No.....	791	9	54	15	252
Total capacity.....	H.P.....	5,144,109	464	80,192	85,485	2,316,007
Steam reciprocating engines.....	No.....	128	2	20	16	8
Total capacity.....	H.P.....	37,827	425	6,193	5,230	4,350
Steam turbines.....	No.....	102	2	13	7	9
Total capacity.....	H.P.....	356,163	2,173	32,963	17,300	29,646
Gas and oil engines.....	No.....	376	6	17	6	5
Total capacity.....	H.P.....	34,462	920	1,184	1,170	1,363
<b>Total Dynamo Capacity.....</b>	<b>K.V.A.....</b>	<b>4,620,543</b>	<b>3,297</b>	<b>98,112</b>	<b>91,682</b>	<b>2,023,592</b>
Per cent of total for Canada.....		100-00	0-07	2-12	1-98	43-80
Dynamos, A. C.....	No.....	1,142	15	96	36	274
Total capacity.....	K.V.A.....	4,612,395	3,289	97,322	90,490	2,023,072
Dynamos, D. C.....	No.....	232	1	8	9	2
Total capacity.....	K.W.....	8,148	8	790	1,222	520
<b>Commercial Stations</b>						
<b>Total Primary Power.....</b>	<b>H.P.....</b>	<b>3,914,474</b>	<b>3,092</b>	<b>50,001</b>	<b>95,050</b>	<b>2,317,810</b>
Water wheels and turbines.....	No.....	538	9	18	9	230
Total capacity.....	H.P.....	3,690,095	464	14,642	72,650	2,288,072
Steam engines.....	No.....	86	2	16	14	4
Total capacity.....	H.P.....	24,329	425	5,045	4,855	2,750
Steam turbines.....	No.....	62	2	10	7	7
Total capacity.....	H.P.....	178,672	2,173	29,945	17,300	25,625
Gas and oil engines.....	No.....	284	1	7	5	5
Total capacity.....	H.P.....	21,378	30	369	245	1,363
<b>Total Dynamo Capacity.....</b>	<b>K.V.A.....</b>	<b>3,293,146</b>	<b>2,532</b>	<b>40,352</b>	<b>80,482</b>	<b>1,996,311</b>
Dynamos, A. C.....	No.....	743	10	43	27	245
Total capacity.....	K.V.A.....	3,277,041	2,524	39,562	79,260	1,995,791
Dynamos, D. C.....	No.....	210	1	8	9	2
Total capacity.....	K.W.....	6,105	8	790	1,222	520
<b>Municipal Stations</b>						
<b>Total Primary Power.....</b>	<b>H.P.....</b>	<b>1,658,087</b>	<b>890</b>	<b>70,081</b>	<b>14,135</b>	<b>33,556</b>
Water wheels and turbines.....	No.....	253	—	36	6	22
Total capacity.....	H.P.....	1,454,014	—	65,550	12,835	27,935
Steam engines.....	No.....	43	—	4	2	4
Total capacity.....	H.P.....	13,498	—	1,058	375	1,600
Steam turbines.....	No.....	40	—	3	—	2
Total capacity.....	H.P.....	177,491	—	2,658	—	4,021
Gas and oil engines.....	No.....	92	5	10	4	—
Total capacity.....	H.P.....	13,084	890	815	925	—
<b>Total Dynamo Capacity.....</b>	<b>K.V.A.....</b>	<b>1,337,397</b>	<b>765</b>	<b>57,760</b>	<b>11,200</b>	<b>27,281</b>
Dynamos, A. C.....	No.....	399	5	53	12	29
Total capacity.....	K.V.A.....	1,335,354	765	57,760	11,200	27,281
Dynamos, D. C.....	No.....	22	—	—	—	—
Total capacity.....	K.W.....	2,043	—	—	—	—

Tableau 11—Total de l'outillage y compris celui d'usines auxiliaires, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
<b>1,770,969</b> 31-78	<b>389,396</b> 6-99	<b>118,444</b> 2-12	<b>149,298</b> 2-68	<b>559,839</b> 10-05	<b>Total force motrice primaire..... H.P.</b> Pourcentage du total pour le Canada.
340	35	—	18	68	Turbines et roues hydrauliques..... Nomb.
1,729,731	352,925	—	69,520	509,785	Capacité totale..... H.P.
15	14	7	34	13	Machines à vapeur..... Nomb.
3,383	4,527	2,693	9,462	1,654	Capacité totale..... H.P.
6	8	21	18	18	Turbines à vapeur..... Nomb.
36,500	29,240	98,162	66,050	44,489	Capacité totale..... H.P.
8	37	204	59	31	Moteurs à explosions..... Nomb.
1,355	2,704	17,589	4,266	3,911	Capacité totale..... H.P.
<b>1,434,490</b> 31-05	<b>311,600</b> 6-74	<b>102,242</b> 2-21	<b>122,703</b> 2-66	<b>432,825</b> 9-37	<b>Capacité des dynamos..... K.V.A.</b> Pourcentage du total pour le Canada.
341	78	104	82	113	Dynamos, C. A..... Nomb.
1,433,705	311,296	100,780	119,973	432,498	Capacité totale..... K.V.A.
9	13	130	43	17	Dynamos, C. D..... Nomb.
785	304	1,462	2,730	327	Capacité totale..... K.W.
<b>Usines Commerciales</b>					
<b>504,700</b>	<b>265,992</b>	<b>29,387</b>	<b>99,898</b>	<b>548,544</b>	<b>Total force motrice primaire..... H.P.</b>
177	18	—	16	61	Turbines et roues hydrauliques..... Nomb.
497,342	247,800	—	68,560	500,565	Capacité totale..... H.P.
6	7	3	27	7	Machines à vapeur..... Nomb.
683	3,422	243	6,167	739	Capacité totale..... H.P.
2	4	6	7	17	Turbines à vapeur..... Nomb.
6,300	14,100	17,340	21,550	44,339	Capacité totale..... H.P.
3	15	167	53	28	Moteurs à explosions..... Nomb.
375	670	11,804	3,621	2,901	Capacité totale..... H.P.
<b>427,981</b>	<b>205,322</b>	<b>25,676</b>	<b>79,536</b>	<b>424,954</b>	<b>Capacité des dynamos..... K.V.A.</b>
170	34	61	57	96	Dynamos, C. A..... Nomb.
427,646	205,238	24,437	77,956	424,627	Capacité totale..... K.V.A.
8	7	117	41	17	Dynamos, C. D..... Nomb.
335	84	1,239	1,580	327	Capacité totale..... K.W.
<b>Usines Municipales</b>					
<b>1,266,269</b>	<b>123,404</b>	<b>89,057</b>	<b>49,400</b>	<b>11,295</b>	<b>Total force motrice primaire..... H.P.</b>
163	17	—	2	7	Turbines et roues hydrauliques..... Nomb.
1,232,389	105,125	—	960	9,220	Capacité totale..... H.P.
9	7	4	7	6	Machines à vapeur..... Nomb.
2,700	1,105	2,450	3,295	915	Capacité totale..... H.P.
4	4	15	11	1	Turbines à vapeur..... Nomb.
30,200	15,140	80,822	44,500	150	Capacité totale..... H.P.
5	22	37	6	3	Moteurs à explosions..... Nomb.
980	2,034	5,785	645	1,010	Capacité totale..... H.P.
<b>1,006,509</b>	<b>106,278</b>	<b>76,566</b>	<b>43,167</b>	<b>7,871</b>	<b>Capacité des dynamos..... K.V.A.</b>
171	44	43	25	17	Dynamos, C. A..... Nomb.
1,006,059	106,058	76,343	42,017	7,871	Capacité totale..... K.V.A.
1	6	13	2	—	Dynamos, C. D..... Nomb.
450	220	223	1,150	—	Capacité totale..... K.W.

Table 12—Main Plant Equipment, 1930

		Canada	Prince Edward Island  Ile du Prince- Edouard	Nova Scotia  Nouvelle- Ecosse	New Brunswick  Nouveau- Brunswick	Quebec  Québec
<b>Total Primary Power..... H.P....</b>						
Per cent of total for Canada.....	H.P....	5,401,108	3,877	118,589	106,760	2,321,793
Water wheels and turbines.....	No.....	100-00	0-07	2-20	1-98	42-99
Total capacity.....	H.P....	791	9	54	15	252
Steam reciprocating engines.....	No.....	5,144,109	464	80,192	85,485	2,316,007
Total capacity.....	H.P....	82	1	13	9	5
Steam turbines.....	No.....	22,861	350	4,955	3,380	1,600
Total capacity.....	H.P....	63	2	13	7	3
Gas and oil engines.....	No.....	207,364	2,173	32,603	17,300	4,146
Total capacity.....	H.P....	340	5	15	6	1
		26,774	890	839	595	40
<b>Total Dynamo Capacity..... K.V.A....</b>						
Per cent of total for Canada.....	K.V.A....	4,474,865	3,297	96,945	89,977	1,997,795
Dynamos, A.C.....	No.....	100-00	0-07	2-17	2-01	44-65
Total capacity.....	K.V.A....	1,037	15	87	30	262
Dynamos, D.C.....	No.....	4,468,513	3,289	96,155	88,988	1,997,275
Total capacity.....	K.W....	226	1	8	2	2
		6,352	8	790	989	520
<b>Commercial Stations</b>						
<b>Total Primary Power..... H.P....</b>						
Per cent of total for Canada.....	H.P....	3,794,819	2,987	49,111	93,525	2,288,237
Water wheels and turbines.....	No.....	100-00	0-08	1-29	2-47	60-30
Total capacity.....	H.P....	538	9	18	9	230
Steam reciprocating engines.....	No.....	3,690,095	464	14,642	72,650	2,288,072
Total capacity.....	H.P....	53	1	11	9	—
Steam turbines.....	No.....	13,586	350	4,320	3,380	1,600
Total capacity.....	H.P....	31	2	10	7	1
Gas and oil engines.....	No.....	74,963	2,173	29,945	17,300	125
Total capacity.....	H.P....	259	—	6	4	1
		16,175	—	204	195	40
<b>Total Dynamo Capacity..... K.V.A....</b>						
Per cent of total for Canada.....	K.V.A....	3,181,428	2,532	39,661	79,374	1,970,514
Dynamos, A.C.....	No.....	100-00	0-08	1-25	2-49	61-94
Total capacity.....	K.V.A....	667	10	37	22	233
Dynamos, D.C.....	No.....	3,176,669	2,524	38,871	78,385	1,969,994
Total capacity.....	K.W....	205	1	8	8	2
		4,759	8	790	989	520
<b>Municipal Stations</b>						
<b>Total Primary Power..... H.P....</b>						
Per cent of total for Canada.....	H.P....	1,606,289	890	69,478	13,235	33,556
Water wheels and turbines.....	No.....	100-00	0-06	4-33	0-82	2-09
Total capacity.....	H.P....	253	—	36	6	22
Steam reciprocating engines.....	No.....	1,454,014	—	65,550	12,835	27,935
Total capacity.....	H.P....	29	—	2	—	4
Steam turbines.....	No.....	9,275	—	635	—	1,600
Total capacity.....	H.P....	32	—	3	—	2
Gas and oil engines.....	No.....	132,401	—	2,658	—	4,021
Total capacity.....	H.P....	81	5	9	2	—
		10,599	890	635	400	—
<b>Total Dynamo Capacity..... K.V.A....</b>						
Per cent of total for Canada.....	K.V.A....	1,293,437	765	57,284	10,603	27,281
Dynamos, A.C.....	No.....	100-00	0-06	4-42	0-82	2-11
Total capacity.....	K.V.A....	370	5	50	8	29
Dynamos, D.C.....	No.....	1,291,844	765	57,284	10,603	27,281
Total capacity.....	K.W....	21	—	—	—	—
		1,593	—	—	—	—
<b>Hydraulic Stations</b>						
<b>Total Dynamo Capacity..... K.V.A....</b>						
Per cent of total for Canada.....	K.V.A....	4,258,936	407	66,661	73,663	1,992,738
Dynamos, A.C.....	No.....	100-00	0-01	1-57	1-73	46-79
Total capacity.....	K.V.A....	768	7	54	14	254
Dynamos, D.C.....	No.....	4,257,978	399	66,661	73,538	1,992,218
Total capacity.....	K.W....	12	1	—	2	—
		958	8	—	125	520
<b>Fuel Stations</b>						
<b>Total Dynamo Capacity..... K.V.A....</b>						
Per cent of total for Canada.....	K.V.A....	215,929	2,890	30,284	16,314	5,057
Dynamos, A.C.....	No.....	100-00	1-34	14-02	7-56	2-34
Total capacity.....	K.V.A....	269	8	33	16	8
Dynamos, D.C.....	No.....	210,535	2,890	29,494	15,450	5,057
Total capacity.....	K.W....	214	—	8	7	—
		5,394	—	790	864	—

\*Capacity of one hydraulic station in Saskatchewan included under Manitoba.



Tableau 12—Machines des usines principales, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
<b>1,730,744 *</b>	<b>362,416 *</b>	<b>118,444</b>	<b>126,000</b>	<b>512,485</b>	<b>Machinerie fourn. la force motrice primaire. H.P.</b>
32.04	6.71	2.19	2.33	9.49	Pourcentage du total pour le Canada.
340	35	—	18	68	Turbines et roues hydrauliques..... Nomb.
<b>1,729,731</b>	<b>352,925</b>	<b>—</b>	<b>69,520</b>	<b>509,785</b>	Capacité totale..... H.P.
6	14	7	18	10	Machines à vapeur..... Nomb.
483	4,527	2,693	4,194	679	Capacité totale..... H.P.
—	2	21	13	2	Turbines à vapeur..... Nomb.
—	2,500	98,162	49,800	680	Capacité totale..... H.P.
3	35	204	51	20	Moteurs à explosions..... Nomb.
530	2,464	17,589	2,486	1,341	Capacité totale..... H.P.
<b>1,401,043</b>	<b>286,437</b>	<b>102,242</b>	<b>102,600</b>	<b>394,529</b>	<b>Capacité totale de l'ensemble des dynamos... K.V.A.</b>
31.31	6.40	2.28	2.29	8.82	Pourcentage du total pour le Canada.
329	70	104	54	86	Dynamos, C.A..... Nomb.
<b>1,400,708</b>	<b>286,133</b>	<b>100,780</b>	<b>100,970</b>	<b>394,215</b>	Capacité totale..... K.V.A.
8	13	130	41	15	Dynamos, C.D..... Nomb.
335	304	1,462	1,630	314	Capacité totale..... K.W.
<b>Usines Commerciales</b>					
<b>497,575</b>	<b>253,992</b>	<b>29,387</b>	<b>77,540</b>	<b>502,465</b>	<b>Machinerie fourn. la force motrice primaire. H.P.</b>
13.11	6.69	0.78	2.04	13.24	Pourcentage du total pour le Canada.
177	18	—	16	61	Turbines et roues hydrauliques..... Nomb.
<b>497,342</b>	<b>247,800</b>	<b>—</b>	<b>68,560</b>	<b>500,565</b>	Capacité totale..... H.P.
4	7	3	12	289	Machines à vapeur..... Nomb.
233	3,422	243	1,349	2	Capacité totale..... H.P.
—	1	6	2	2	Turbines à vapeur..... Nomb.
—	2,100	17,340	5,300	680	Capacité totale..... H.P.
—	15	167	48	18	Moteurs à explosions..... Nomb.
—	670	11,804	2,331	931	Capacité totale..... H.P.
<b>421,687</b>	<b>194,072</b>	<b>25,676</b>	<b>69,211</b>	<b>387,701</b>	<b>Capacité totale de l'ensemble des dynamos... K.V.A.</b>
13.25	6.10	0.81	1.89	12.19	Pourcentage du total pour le Canada.
166	31	61	34	73	Dynamos, C.A..... Nomb.
<b>421,352</b>	<b>193,988</b>	<b>24,437</b>	<b>59,731</b>	<b>387,387</b>	Capacité totale..... K.V.A.
8	7	117	39	15	Dynamos, C.D..... Nomb.
335	84	1,239	480	314	Capacité totale..... K.W.
<b>Usines Municipales</b>					
<b>1,233,169</b>	<b>108,424</b>	<b>89,057</b>	<b>48,460</b>	<b>10,020</b>	<b>Machinerie fourn. la force motrice primaire. H.P.</b>
76.77	6.75	5.54	3.02	0.62	Pourcentage du total pour le Canada.
163	17	—	2	7	Turbines et roues hydrauliques..... Nomb.
<b>1,232,389</b>	<b>105,125</b>	<b>—</b>	<b>960</b>	<b>9,220</b>	Capacité totale..... H.P.
2	7	4	6	4	Machines à vapeur..... Nomb.
250	1,105	2,450	2,845	390	Capacité totale..... H.P.
—	1	15	11	—	Turbines à vapeur..... Nomb.
—	400	80,822	44,500	—	Capacité totale..... H.P.
3	20	37	3	2	Moteurs à explosions..... Nomb.
530	1,794	5,785	155	410	Capacité totale..... H.P.
<b>979,356</b>	<b>92,365</b>	<b>76,566</b>	<b>42,389</b>	<b>6,828</b>	<b>Capacité totale de l'ensemble des dynamos... K.V.A.</b>
75.72	7.14	5.92	3.28	0.53	Pourcentage du total pour le Canada.
163	39	43	20	13	Dynamos, C.A..... Nomb.
<b>979,356</b>	<b>92,145</b>	<b>76,343</b>	<b>41,239</b>	<b>6,828</b>	Capacité totale..... K.V.A.
—	6	13	2	—	Dynamos, C.D..... Nomb.
—	220	223	1,150	—	Capacité totale..... K.W.
<b>Usines Hydrauliques</b>					
<b>1,400,273</b>	<b>279,412</b>	<b>—</b>	<b>53,200</b>	<b>392,582</b>	<b>Capacité totale de l'ensemble des dynamos... K.V.A.</b>
32.88	6.56	—	1.25	9.21	Pourcentage du total pour le Canada.
322	35	—	14	68	Dynamos, C.A..... Nomb.
<b>1,400,038</b>	<b>279,412</b>	<b>—</b>	<b>53,200</b>	<b>392,512</b>	Capacité totale..... K.V.A.
6	—	—	—	2	Dynamos, C.D..... Nomb.
235	—	—	—	70	Capacité totale..... K.W.
<b>Usines à combustible</b>					
<b>770</b>	<b>7,025</b>	<b>102,242</b>	<b>49,400</b>	<b>1,947</b>	<b>Capacité totale de l'ensemble des dynamos... K.V.A.</b>
0.36	3.25	47.35	22.88	0.90	Pourcentage du total pour le Canada.
7	35	104	40	18	Dynamos, C.A..... Nomb.
670	6,721	100,780	47,770	1,703	Capacité totale..... K.V.A.
2	13	130	41	13	Dynamos, C.D..... Nomb.
100	304	1,462	1,630	244	Capacité totale..... K.W.

\*Capacité d'une usine hydraulique en Saskatchewan est comprise dans les chiffres du Manitoba.

Table 13—Main Plant Equipment Classified, 1930

	Canada	Prince Edward Island — Ile du Prince- Edouard	Nova Scotia — Nouvelle- Ecosse
<b>Primary Power—Force motrice primaire.....</b>	<b>5,401,108</b>	<b>3,877</b>	<b>118,588</b>
Water wheels and turbines—Roues hydrauliques et turbines.....	Total No. 791	9	54
	Total H.P. 5,144,109	464	80,192
Under—Au-dessous de 500 H.P.....	No. 172	9	24
	Total H.P. 32,390	464	4,952
500— 2,000 H.P.....	No. 214	—	16
	Total H.P. 242,444	—	18,900
2,000—5,000 H.P.....	No. 124	—	10
	Total H.P. 368,725	—	33,040
5,000—10,000 H.P.....	No. 106	—	4
	Total H.P. 695,850	—	23,300
10,000—15,000 H.P.....	No. 74	—	—
	Total H.P. 857,300	—	—
15,000—25,000 H.P.....	No. 48	—	—
	Total H.P. 875,500	—	—
25,000 up.....	No. 53	—	—
	Total H.P. 2,071,900	—	—
Steam reciprocating engines—Machines à vapeur.....	Total No. 82	1	13
	Total H.P. 22,861	350	4,955
Under—Au-dessous de 500 H.P.....	No. 70	1	11
	Total H.P. 11,051	350	3,155
500 up.....	No. 12	—	2
	Total H.P. 11,810	—	1,800
Steam turbines—Turbines à vapeur.....	Total No. 63	2	13
	Total H.P. 207,364	2,173	32,603
Under—Au-dessous de 500 H.P.....	No. 6	—	2
	Total H.P. 1,982	—	1,027
500— 2,000 H.P.....	No. 22	2	6
	Total H.P. 23,617	2,173	6,876
2,000—5,000 H.P.....	No. 23	—	3
	Total H.P. 65,491	—	9,400
5,000—10,000 H.P. and up.....	No. 12	2	2
	Total H.P. 116,274	—	15,300
Gas and Oil Engines—Moteurs à gaz et à pétrole.....	Total No. 340	5	15
	Total H.P. 26,774	890	839
<b>Secondary Power—Force motrice secondaire.</b>			
Dynamos, A.C. and D.C.—C.A. et C.D.....	Total No. 1,263	16	95
	Total K.V.A. 4,474,865	3,297	96,945
Dynamos, A.C.—C.A.....	Total No. 1,037	15	87
	Total K.V.A. 4,468,513	3,289	96,155
Under—Au-dessous de 50 K.V.A.....	No. 64	4	8
	Total K.V.A. 2,032	133	322
50— 200 K.V.A.....	No. 181	7	20
	Total K.V.A. 20,030	731	2,080
200— 500 K.V.A.....	No. 130	2	17
	Total K.V.A. 40,125	550	4,913
500— 1,000 K.V.A.....	No. 145	1	12
	Total K.V.A. 106,641	625	8,280
1,000— 5,000 K.V.A.....	No. 265	1	27
	Total K.V.A. 605,328	1,250	63,060
5,000—10,000 K.V.A.....	No. 104	—	3
	Total K.V.A. 721,192	—	17,500
10,000—15,000 K.V.A.....	No. 65	—	—
	Total K.V.A. 699,665	—	—
15,000—25,000 K.V.A.....	No. 38	—	—
	Total K.V.A. 701,500	—	—
25,000 up.....	No. 45	—	—
	Total K.V.A. 1,572,000	—	—
Dynamos, D.C.—C.D.....	Total No. 226	1	8
	Total K.W. 6,352	8	790
Under—Au-dessous de 50 K.W.....	No. 206	1	4
	Total K.W. 2,409	8	40
50—200 K.W.....	No. 14	—	2
	Total K.W. 1,093	—	200
200—500 K.W.....	No. 3	—	2
	Total K.W. 950	—	550
500 up.....	No. 3	—	—
	Total K.W. 1,900	—	—

Tableau 13—Machines des usines principales classifiées, 1930

New Brunswick — Nouveau-Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	Commercial — Commerciales	Municipal — Municipales
106,760	2,321,793	1,730,744	362,416	118,444	126,000	512,485	3,794,819	1,606,289
15	252	340	35	—	18	68	538	253
85,485	2,316,007	1,729,731	352,925	—	69,520	509,785	3,690,095	1,454,014
3	32	79	1	—	10	14	116	56
935	6,523	15,156	125	—	1,920	2,315	19,901	12,489
2	71	116	—	—	—	9	128	86
2,050	80,584	129,640	—	—	—	11,270	140,769	101,675
6	35	56	4	—	2	11	89	35
17,500	100,950	162,235	12,800	—	8,000	34,200	268,675	100,050
1	36	27	21	—	4	13	74	32
5,000	249,450	175,500	130,000	—	23,600	89,000	499,750	196,100
—	28	35	3	—	—	8	57	17
—	302,100	415,700	42,000	—	—	97,500	645,100	212,200
3	17	17	—	—	2	9	31	17
60,000	352,500	271,500	—	—	36,000	155,500	604,000	271,500
—	33	10	6	—	—	4	43	10
—	1,223,900	560,000	168,000	—	—	120,000	1,511,900	560,000
9	4	6	14	7	18	10	53	29
3,380	1,600	483	4,527	2,693	4,194	679	13,586	9,275
6	3	6	13	5	15	10	47	23
480	900	483	2,277	843	1,884	679	6,636	4,415
3	1	—	2	2	3	—	6	6
2,900	700	—	2,250	1,850	2,310	—	6,950	4,860
7	3	—	2	21	13	2	31	32
17,300	4,146	—	2,500	98,162	49,800	680	74,963	132,401
1	1	—	1	—	—	1	4	2
250	125	—	400	—	—	180	1,180	802
4	1	—	—	6	2	1	13	9
4,050	1,340	—	—	6,678	2,000	500	13,351	10,266
1	1	—	1	9	8	—	10	13
3,000	2,681	—	2,100	26,210	22,100	—	28,466	37,025
1	—	—	—	6	3	—	4	8
10,000	—	—	—	65,274	25,700	—	31,966	84,308
6	1	3	35	204	51	20	259	81
595	40	530	2,464	17,589	2,486	1,341	16,175	10,599
38	264	337	83	234	95	101	872	391
89,977	1,997,795	1,401,043	286,437	102,242	102,600	394,529	2,181,428	1,293,437
30	262	329	70	104	54	86	667	370
88,988	1,997,275	1,400,708	286,133	100,780	100,970	394,215	3,176,669	1,291,844
—	4	5	12	18	6	7	36	28
—	130	148	371	606	152	170	1,114	918
9	19	34	15	40	16	21	114	67
1,015	2,164	4,176	1,342	4,489	1,655	2,378	11,954	8,076
2	24	43	7	20	10	5	73	57
843	7,821	13,092	2,257	6,219	2,825	1,605	21,700	18,425
5	45	66	—	7	3	6	91	54
3,655	34,540	48,700	—	4,466	2,088	4,287	66,465	40,176
10	66	99	16	13	14	19	173	92
23,475	147,470	202,960	49,413	28,750	40,500	48,450	402,791	202,537
1	23	46	11	4	2	14	61	43
7,500	146,900	344,592	70,750	25,000	11,250	97,700	418,830	302,362
—	31	23	3	1	1	6	50	15
—	318,000	245,040	36,000	12,500	12,500	75,625	541,065	158,600
3	16	3	6	1	2	7	34	4
52,500	309,250	45,000	126,000	18,750	30,000	120,000	637,750	63,750
—	34	10	—	—	—	1	35	10
—	1,031,000	497,000	—	—	—	44,000	1,075,000	497,000
8	2	8	13	130	41	15	205	21
989	520	335	304	1,462	1,630	314	4,759	1,593
4	1	4	11	129	38	14	190	16
89	20	100	179	1,399	355	219	2,154	255
3	—	4	2	1	1	1	11	3
250	—	235	125	63	125	95	905	188
—	—	—	—	—	1	—	2	1
—	—	—	—	—	400	—	550	400
1	1	—	—	—	1	—	2	1
650	500	—	—	—	750	—	1,150	750



Table 14—Electric Energy Generated, 1930

	Canada	Prince Edward Island Ile du Prince- Edouard	Nova Scotia Nouvelle- Ecosse	New Brunswick Nouveau- Brunswick	Quebec
<b>ALL STATIONS</b>					
<b>Total K.W. Hours generated</b> .....(thousands)	<b>18,093,802</b>	<b>3,591</b>	<b>223,421</b>	<b>332,598</b>	<b>8,822,901</b>
Percent cent of total for Canada.....	100.00	0.02	1.23	1.84	48.76
K.W. hours for disposal.....(thousands)	18,093,802	3,591	223,421	334,308	7,682,805
Disposal of electrical energy—K.W. hours					
Domestic service.....(thousands)	1,489,575	1,170	15,924	15,734	205,457
Commercial light.....(thousands)	744,126	826	11,461	10,912	154,970
Power, street lighting, free service and line losses.....(thousands)	15,860,101	1,595	196,036	307,662	7,322,378
K.W. hours generated by non-generating stations.....(thousands)	2,419	—	450	5	—
K.W. hours generated by generating stations.....(thousands)	18,091,383	3,591	222,971	332,593	8,822,901
K.V.A. capacity of generating stations.....	4,614,710	3,297	97,408	89,977	2,023,592
Ratio of output to maximum capacity.....(p.c.)	47.1	12.4	29.0	42.7	51.3
Average K.W. hours per K.V.A.....	3,913	1,089	2,289	3,696	4,360
<b>GENERATING STATIONS</b>					
<b>Commercial Stations</b>					
Total					
K.W. hours generated.....(thousands)	12,937,009	2,859	75,483	310,399	8,774,948
K.V.A. capacity.....	3,281,535	2,532	39,999	79,374	1,996,311
Ratio of output to maximum capacity.....(p.c.)	47.4	12.9	27.7	44.6	51.7
Average K.W. hours per K.V.A.....	3,932	1,129	1,887	3,911	4,396
<b>Hydraulic Stations</b>					
K.W. hours generated.....(thousands)	12,792,213	204	20,438	278,706	8,774,800
K.V.A. capacity.....	3,196,572	407	12,818	63,400	1,996,171
Ratio of output to maximum capacity.....(p.c.)	48.0	5.7	26.0	50.2	51.7
Average K.W. hours per K.V.A.....	3,991	501	1,594	4,396	4,396
<b>Fuel Stations</b>					
K.W. hours generated.....(thousands)	144,796	2,655	55,045	31,693	148
K.V.A. capacity.....	84,963	2,125	27,181	15,974	140
Ratio of output to maximum capacity.....(p.c.)	21.0	14.3	28.4	22.6	12.1
Average K.W. hours per K.V.A.....	1,704	1,249	2,025	1,984	1,057
<b>Municipal Stations</b>					
Total					
K.W. hours generated.....(thousands)	5,154,374	732	147,488	22,194	47,953
K.V.A. capacity.....	1,333,175	765	57,409	10,603	27,281
Ratio of output to maximum capacity.....(p.c.)	46.4	10.9	29.8	26.4	20.1
Average K.W. hours per K.V.A.....	3,866	957	2,569	2,093	1,758
<b>Hydraulic Stations</b>					
K.W. hours generated.....(thousands)	4,987,498	—	143,574	21,506	46,500
K.V.A. capacity.....	1,202,209	—	54,306	10,263	22,364
Ratio of output to maximum capacity.....(p.c.)	49.6	—	30.2	26.5	23.7
Average K.W. hours per K.V.A.....	4,148	—	2,644	2,095	2,079
<b>Fuel Stations</b>					
K.W. hours generated.....(thousands)	166,876	732	3,914	688	1,453
K.V.A. capacity.....	130,966	765	3,103	340	4,917
Ratio of output to maximum capacity.....(p.c.)	15.6	10.9	20.0	23.1	3.4
Average K.W. hours per K.V.A.....	1,274	957	1,261	2,024	296
<b>Total Hydraulic Stations</b>					
K.W. hours generated.....(thousands)	17,779,711	204	164,012	300,212	8,821,300
K.V.A. capacity.....	4,398,781	407	67,124	73,663	2,018,535
Ratio of output to maximum capacity.....(p.c.)	48.5	5.7	29.6	47.2	51.4
Average K.W. hours per K.V.A.....	4,034	501	2,443	4,075	4,370
K.W. hours generated by water power.....	17,748,820	189	163,702	300,212	8,820.9
K.W. hours generated by auxiliary plants.....	30,891	15	310	—	365
<b>Total Fuel Stations</b>					
K.W. hours generated.....(thousands)	311,672	3,387	58,959	32,381	1,601
K.V.A. capacity.....	215,929	2,890	30,284	16,314	5,057
Ratio of output to maximum capacity.....(p.c.)	17.7	13.4	27.6	22.7	3.6
Average K.W. hours per K.V.A.....	1,443	1,172	1,947	1,985	317

\* Output of one hydraulic station in Saskatchewan is included in Manitoba.

Tableau 14—Energie Electrique produite, 1930

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon — Colombie Britannique et Yukon	
<b>TOUTES USINES</b>					
<b>6,160,987</b>	<b>*991,237</b>	<b>*137,217</b>	<b>204,076</b>	<b>1,217,774</b>	<b>Total K.W. heures produits (milliers).</b>
34.05	5.48	0.76	1.13	6.73	Pourcentage du total pour le Canada.
<b>7,299,374 *</b>	<b>991,237</b>	<b>*137,217</b>	<b>205,549</b>	<b>1,216,300</b>	<b>K.W. heures pour distribution.</b>
—	—	—	—	—	Distribution de l'énergie électrique—K.W. heures.
840,992	242,718	35,380	30,458	101,742	Service domestique (milliers).
350,143	86,689	20,442	21,361	87,322	Eclairage commercial (milliers).
6,108,239	661,830	81,395	153,730	1,027,236	Force motrice, éclairage de rues, service gratuit, et pertes (milliers).
—	—	1,964	—	—	K.W. heures produits par les usines non génératrices (milliers).
6,160,987	991,237	135,253	204,076	1,217,774	K.W. heures produits par les usines génératrices (milliers).
1,432,525	311,600	102,242	121,925	432,144	Capacité des usines génératrices en K.V.A.
51.8	38.3	16.6	19.1	37.1	Proportion de la production à la capacité (p.c.).
4,301	3,181	1,323	1,674	2,761	Moyenne des K.W. heures par K.V.A.
<b>USINES GÉNÉRATRICES</b>					
<b>Usines commerciales</b>					
<b>Total</b>					
1,753,014	631,495	36,237	147,038	1,205,536	K.W. heures produits (milliers).
427,981	205,322	25,676	79,536	424,804	Capacité en K.V.A.
49.0	38.1	16.9	21.1	37.5	Proportion de la production à la capacité (p.c.)
4,096	3,076	1,411	1,849	2,780	Moyenne des heures K.W. par K.V.A.
<b>Stations hydrauliques</b>					
1,752,867	626,162	—	135,172	1,203,864	K.W. heures produits (milliers).
427,816	200,850	—	71,675	423,435	Capacité en K.V.A.
49.1	38.7	—	21.5	37.6	Proportion de la production à la capacité (p.c.)
4,097	3,118	—	1,886	2,785	Moyenne des K.W. heures par K.V.A.
<b>Stations à combustible</b>					
147	5,333	36,237	11,866	1,672	K.W. heures produits (milliers).
165	4,472	25,676	7,861	1,369	Capacité en K.V.A.
10.2	13.6	16.9	17.2	13.9	Proportion de la production à la capacité (p.c.).
891	1,193	1,411	1,509	1,221	Moyenne des K.W. heures par K.V.A.
<b>Usines municipales</b>					
<b>Total</b>					
4,407,973	359,742	99,016	57,038	12,238	K.W. heures produits (milliers).
1,004,544	106,278	76,566	42,389	7,340	Capacité en K.V.A.
52.9	38.6	16.4	15.4	19.4	Proportion de la production à la capacité (p.c.).
4,388	3,385	1,293	1,346	1,648	Moyenne des K.W. heures par K.V.A.
<b>Stations hydrauliques</b>					
4,407,345	356,221	—	1,008	11,344	K.W. heures produits (milliers).
1,003,939	103,725	—	850	6,762	Capacité en K.V.A.
53.0	39.2	—	13.5	19.2	Proportion de la production à la capacité (p.c.)
4,390	3,434	—	1,186	1,656	Moyenne des K.W. heures par K.V.A.
<b>Stations à combustible</b>					
628	3,521	99,016	56,030	894	K.W. heures produits (milliers).
605	2,553	76,566	41,539	578	Capacité en K.V.A.
11.8	15.7	16.4	15.4	22.8	Proportion de la production à la capacité (p.c.).
1,038	1,379	1,293	1,349	1,547	Moyenne des K.W. heures par K.V.A.
<b>Stations totales hydrauliques</b>					
6,160,212	982,383	—	136,180	1,215,208	K.W. heures produits (milliers).
1,431,755	304,575	—	72,525	430,197	Capacité en K.V.A.
53.0	38.9	—	21.4	37.2	Proportion de la production à la capacité (p.c.)
4,303	3,225	—	1,878	2,767	Moyenne des K.W. heures par K.V.A.
6,154,584	981,256	—	134,353	1,193,589	K.W. heures produits par les usines hydrauliques.
5,628	1,127	—	1,827	21,619	K.W. heures produits par usines auxiliaires.
<b>Total de stations thermiques</b>					
775	8,854	135,253	67,896	2,566	K.W. heures produits (milliers).
770	7,025	102,242	49,400	1,947	Capacité en K.V.A.
11.5	14.4	16.6	15.7	16.1	Proportion de la production à la capacité (p.c.).
1,006	1,260	1,323	1,374	1,318	Moyenne des K.W. heures par K.V.A.

\* La production d'une usine hydraulique en Saskatchewan est comprise dans les chiffres du Manitoba.

## CENSUS OF INDUSTRY

Table 15—Fuel, 1930

Province	Bituminous Coal—	
	Canadian Canadien	
	Quantity Quantité	Value Valeur
	Ton Tonnes	\$
<b>Canada.....</b>	<b>248,862</b>	<b>1,160,611</b>
Prince Edward Island.....	—	—
Nova Scotia.....	89,064	354,468
New Brunswick.....	24,013	116,151
Quebec.....	—	—
Ontario.....	50	250
Manitoba.....	4,576	23,381
Saskatchewan.....	108,197	580,772
Alberta.....	1,600	5,598
British Columbia and Yukon.....	21,362	79,991

Province	Kerosene Kérosène	
	Quantity Quantité	Value Valeur
	Gal. Gal.	\$
<b>Canada.....</b>	<b>155,431</b>	<b>29,907</b>
Prince Edward Island.....	73,913	8,286
Nova Scotia.....	20	6
New Brunswick.....	450	99
Quebec.....	—	—
Ontario.....	180	38
Manitoba.....	22,437	4,813
Saskatchewan.....	43,881	12,812
Alberta.....	9,978	2,511
British Columbia.....	4,572	1,342



Tableau 15—Combustible, 1930

Charbon bitumineux		Anthracite Coal Charbon anthracite		Lignite Coal—Lignite		Gasoline Gazoline	
Imported Importé				Canadian Canadien			
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Ton Tonnes	\$	Ton Tonnes	\$	Ton Tonnes	\$	Gal. Gal.	\$
48,936	284,154	1,651	13,194	202,861	530,315	106,653	31,962
4,847	35,559	-	-	-	-	50	150
-	-	-	-	-	-	-	-
5,753	43,668	-	-	-	-	-	-
3,434	24,552	1,521	10,984	-	-	1,200	264
32,386	160,632	-	-	-	-	-	-
2,516	19,743	-	-	39,402	117,534	812	222
-	-	130	2,210	41,077	185,313	66,253	18,659
-	-	-	-	122,382	227,468	30,220	9,945
-	-	-	-	-	-	8,118	2,722
Fuel Oil Huile combustible		Wood Bois		Natural Gas Gaz naturel		Other Fuel Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
Gal. Gal.	\$	Cord Corde	\$	1,000 cu. ft. 1,000 pd. cu.	\$	\$	\$
5,322,893	483,733	7,079	27,097	384,555	21,896	12,010	2,594,879
10,450	2,068	100	500	-	-	-	46,563
101,504	12,429	-	-	-	-	-	366,903
125,485	14,158	1,000	1,000	-	-	-	175,076
37,600	4,940	-	-	-	-	12,010	52,750
91,645	8,273	1,500	1,500	-	-	-	170,693
297,682	46,302	3,431	17,194	-	-	-	229,189
1,734,031	245,968	128	518	-	-	-	1,046,252
205,523	30,327	250	500	384,555	21,896	-	298,245
2,718,973	119,268	670	5,885	-	-	-	209,208

## APPENDIX A

## MONTHLY OUTPUT OF CENTRAL ELECTRIC STATIONS

The data in the following tables are supplied monthly by the large stations only, but as these stations produce over 97 per cent of the output of all central electric stations in Canada, the fluctuations and trends may be considered as representing the industry.

OUTPUT OF CENTRAL ELECTRIC STATIONS IN CANADA  
PRODUCTION DES USINES ÉLECTRIQUES CENTRALES EN CANADA

(A) MONTHLY OUTPUT—PRODUCTION MENSUELLE  
(Thousands of Kilowatt Hours—En milliers de kilowatt-heures)

Month	Totals for Canada Totaux pour le Canada			Generated by Water-Power Généré par pouvoir hydraulique					Generated by Fuel Généré par combustible		Total Exports Total, exportations	Mois
	Water Eau	Fuel Combustible	Total	Maritime Provinces Provinces maritimes	Quebec Québec	Ontario	Prairie Provinces Provinces des prairies	British Columbia Colombie Britannique	Prairie Provinces Provinces des prairies	Other Provinces Autres provinces		
<b>1929</b>												<b>1929</b>
Jan.....	1,478,953	28,920	1,507,873	14,242	728,703	516,574	117,592	101,842	21,835	7,085	114,267	Janv.
Feb.....	1,315,207	31,282	1,346,489	14,341	645,934	470,824	103,364	80,744	18,546	12,736	110,645	Fév.
March.....	1,440,734	29,786	1,470,520	15,995	714,729	514,451	105,704	89,855	18,206	11,580	126,648	Mars.
April.....	1,378,557	30,524	1,409,081	15,677	685,180	493,997	97,453	86,250	19,527	10,997	110,692	Avril.
May.....	1,431,806	24,881	1,456,687	15,424	709,909	517,402	101,418	87,653	16,414	8,467	112,302	Mai.
June.....	1,360,875	17,249	1,378,124	14,543	677,920	492,233	87,191	88,988	13,626	3,623	119,394	Juin.
July.....	1,392,857	17,852	1,410,709	14,813	696,621	506,577	86,941	87,905	14,211	3,641	128,601	Juillet.
Aug.....	1,425,572	19,363	1,444,935	15,109	713,515	515,964	88,049	92,931	14,897	4,466	133,159	Août.
Sept.....	1,455,053	22,064	1,477,117	14,155	746,647	506,352	95,257	92,642	15,044	7,020	136,301	Sept.
Oct.....	1,559,042	35,241	1,594,283	16,597	813,794	529,568	105,049	94,034	19,654	15,587	126,360	Oct.
Nov.....	1,559,178	35,870	1,595,048	16,989	797,314	542,228	111,318	91,329	18,138	17,732	124,029	Nov.
Dec.....	1,496,600	38,431	1,535,031	17,315	746,934	532,318	117,079	82,954	19,958	18,473	102,004	Déc.
<b>Total.</b>	<b>17,291,434</b>	<b>331,163</b>	<b>17,622,597</b>	<b>185,200</b>	<b>8,677,304</b>	<b>6,138,488</b>	<b>1,216,415</b>	<b>1,077,127</b>	<b>210,056</b>	<b>121,407</b>	<b>1,144,402</b>	<b>Total.</b>
<b>1930</b>												<b>1930</b>
Jan.....	1,513,719	41,092	1,554,811	29,448	745,711	549,119	104,698	84,743	23,063	18,029	112,625	Janv.
Feb.....	1,371,215	26,840	1,398,055	28,705	686,957	489,210	82,397	83,946	18,702	8,178	117,176	Fév.
March.....	1,491,040	24,425	1,515,465	34,469	741,411	528,404	89,826	96,930	18,222	6,203	126,894	Mars.
April.....	1,480,953	21,385	1,502,338	42,968	744,861	509,615	92,601	90,908	16,437	4,948	117,504	Avril.
May.....	1,523,521	21,106	1,544,627	44,139	761,327	524,679	100,116	93,260	16,466	4,640	129,138	Mai.
June.....	1,414,236	20,375	1,434,611	42,632	709,245	485,791	87,683	88,885	15,801	4,574	136,016	Juin.
July.....	1,404,009	21,681	1,425,690	40,667	722,335	460,611	89,169	91,227	16,522	5,159	131,817	Juillet.
Aug.....	1,391,054	20,806	1,411,860	41,788	710,842	457,424	84,925	96,075	14,898	5,908	142,571	Août.
Sept.....	1,419,051	23,910	1,442,961	38,662	704,123	485,151	92,060	99,055	14,882	9,028	153,657	Sept.
Oct.....	1,549,846	24,714	1,574,560	39,480	781,996	521,991	95,005	111,374	16,874	7,840	161,323	Oct.
Nov.....	1,488,175	27,228	1,515,403	41,264	764,490	480,131	92,292	109,998	19,506	7,722	141,587	Nov.
Dec.....	1,513,152	29,156	1,542,308	44,295	764,612	480,442	111,443	112,360	19,748	9,408	149,295	Déc.
<b>Total.</b>	<b>17,539,971</b>	<b>302,758</b>	<b>17,842,729</b>	<b>468,517</b>	<b>8,837,910</b>	<b>5,972,568</b>	<b>1,122,215</b>	<b>1,158,761</b>	<b>211,121</b>	<b>91,637</b>	<b>1,619,603</b>	<b>Total.</b>
<b>1931</b>												<b>1931</b>
Jan.....	1,456,326	32,395	1,488,721	44,394	735,385	469,438	104,099	103,010	20,187	12,208	162,443	Janv.
Feb.....	1,311,136	27,851	1,338,987	31,097	674,560	422,213	88,481	94,785	17,298	10,553	145,461	Fév.
March.....	1,391,982	25,576	1,417,558	34,338	703,708	451,912	95,991	106,033	15,992	9,584	127,940	Mars.
April.....	1,388,034	23,056	1,411,090	52,154	717,900	415,482	101,539	100,959	13,360	9,696	97,677	Avril.
May.....	1,342,940	22,846	1,365,786	53,433	693,853	394,243	102,640	98,771	12,781	10,065	86,824	Mai.
June.....	1,267,869	21,959	1,289,828	52,675	638,719	379,568	101,337	95,570	12,139	9,820	88,602	Juin.
July.....	1,230,622	20,700	1,251,322	50,712	620,634	369,294	100,480	89,502	12,297	8,403	95,085	Juillet.
Aug.....	1,234,266	21,883	1,256,149	44,924	644,446	352,877	98,119	93,900	12,905	8,978	99,780	Août.
Sept.....	1,263,412	25,001	1,288,413	46,251	662,400	355,122	102,835	96,804	13,436	11,565	93,288	Sept.
Oct.....	1,400,704	27,638	1,428,342	55,743	736,381	374,065	123,087	101,428	15,332	12,306	95,423	Oct.
Nov.....	1,385,378	29,642	1,415,020	56,725	731,014	383,065	125,867	98,688	18,819	10,823	73,357	Nov.
Dec.....	1,397,876	34,306	1,432,182	55,214	722,508	385,407	130,407	104,340	20,908	13,398	69,362	Déc.
<b>Total.</b>	<b>16,070,515</b>	<b>312,853</b>	<b>16,383,368</b>	<b>577,660</b>	<b>8,281,508</b>	<b>4,752,705</b>	<b>1,274,882</b>	<b>1,183,790</b>	<b>185,454</b>	<b>127,399</b>	<b>1,335,242</b>	<b>Total.</b>

## APPENDICE A

## PRODUCTION MENSUELLE DES USINES CENTRALES ELECTRIQUES

Les données contenues dans les tableaux qui suivent sont fournies tous les mois par les grandes stations seulement, mais comme ces stations produisent plus de 97 p.c. de toute la production de toutes les usines centrales électriques du Canada, les fluctuations et les tendances peuvent être considérées comme représentant l'industrie.

OUTPUT OF CENTRAL ELECTRIC STATIONS IN CANADA—Concluded  
PRODUCTION DES USINES ÉLECTRIQUES CENTRALES EN CANADA—Fin

(B) AVERAGE DAILY OUTPUT—MOYENNE DE PRODUCTION QUOTIDIENNE  
(Thousands of Kilowatt Hours—En milliers de kilowatt-heures)

Month	Totals for Canada Totaux pour le Canada			Generated by Water-Power Généré par pouvoir hydraulique					Generated by Fuel Généré par combustible		Total Exports Total, exportations	Mois
	Water Eau	Fuel Com- bus- tible	Total	Maritime Provinces — Provinces maritimes	Quebec — Québec	Ontario	Prairie Provinces — Provinces des prairies	British Columbia — Colombie Britannique	Prairie Provinces — Provinces des prairies	Other Provinces — Autres provinces		
<b>1929</b>												<b>1929</b>
Jan.....	47,708	933	48,641	459	23,507	16,664	3,793	3,285	704	229	3,689	Janv.
Feb.....	46,971	1,117	48,088	512	23,069	16,815	3,691	2,884	662	455	3,952	Fév.
March.....	46,475	961	47,436	516	23,056	16,595	3,410	2,898	587	574	4,085	Mars.
April.....	45,952	1,017	46,969	523	22,839	16,467	3,248	2,875	651	366	3,690	Avril.
May.....	46,187	803	46,990	498	22,900	16,690	3,272	2,827	530	273	3,628	Mai.
June.....	45,362	575	45,937	485	22,597	16,408	2,906	2,966	454	121	3,980	Juin.
July.....	44,931	575	45,506	478	22,472	16,341	2,804	2,836	458	117	4,148	Juillet.
Aug.....	45,986	624	46,610	487	23,017	16,644	2,840	2,998	480	144	4,295	Août.
Sept.....	48,502	735	49,237	472	24,888	16,879	3,175	3,088	501	234	4,543	Sept.
Oct.....	50,291	1,137	51,428	535	26,251	17,083	3,389	3,033	634	503	4,076	Oct.
Nov.....	51,973	1,195	53,168	566	26,577	18,074	3,711	3,045	604	591	4,134	Nov.
Dec.....	48,278	1,239	49,517	558	24,095	17,172	3,777	2,676	643	596	3,290	Déc.
<b>Average..</b>	<b>47,352</b>	<b>908</b>	<b>48,290</b>	<b>507</b>	<b>23,773</b>	<b>16,818</b>	<b>3,333</b>	<b>2,951</b>	<b>575</b>	<b>333</b>	<b>3,957</b>	<b>Moyenne.</b>
<b>1930</b>												<b>1930</b>
Jan.....	48,829	1,326	50,155	950	24,055	17,713	3,377	2,734	744	582	3,633	Janv.
Feb.....	48,972	960	49,932	1,025	24,534	17,472	2,943	2,998	668	292	4,185	Fév.
March.....	48,098	788	48,886	1,112	23,916	17,045	2,898	3,127	588	200	4,093	Mars.
April.....	49,365	713	50,078	1,432	24,829	16,987	3,087	3,030	548	165	3,917	Avril.
May.....	49,146	681	49,827	1,424	24,559	16,925	3,230	3,008	531	150	4,166	Mai.
June.....	47,141	679	47,820	1,422	23,642	16,193	2,922	2,962	527	152	4,534	Juin.
July.....	45,291	669	45,960	1,312	23,301	14,858	2,877	2,943	533	166	4,252	Juillet.
Aug.....	44,873	671	45,544	1,348	22,930	14,756	2,740	3,099	481	190	4,599	Août.
Sept.....	47,301	797	48,098	1,288	23,470	16,172	3,069	3,302	496	301	5,122	Sept.
Oct.....	49,995	797	50,792	1,273	25,226	16,838	3,065	3,593	544	253	5,204	Oct.
Nov.....	49,606	908	50,514	1,375	25,483	16,004	3,077	3,667	650	258	4,720	Nov.
Dec.....	48,811	940	49,751	1,429	24,665	15,498	3,595	3,624	637	303	4,816	Déc.
<b>Average..</b>	<b>48,110</b>	<b>829</b>	<b>48,939</b>	<b>1,284</b>	<b>24,213</b>	<b>16,363</b>	<b>3,075</b>	<b>3,175</b>	<b>578</b>	<b>251</b>	<b>4,437</b>	<b>Moyenne.</b>
<b>1931</b>												<b>1931</b>
Jan.....	46,978	1,045	48,023	1,432	23,722	15,143	3,358	3,323	651	394	5,240	Janv.
Feb.....	46,826	995	47,821	1,111	24,091	15,079	3,160	3,385	618	377	5,195	Fév.
March.....	44,903	825	45,728	1,108	22,700	14,578	3,096	3,421	516	309	4,127	Mars.
April.....	46,268	768	47,036	1,738	23,930	13,849	3,385	3,366	445	323	3,256	Avril.
May.....	43,320	737	44,057	1,723	22,382	12,718	3,311	3,186	412	325	2,800	Mai.
June.....	42,262	732	42,994	1,756	21,291	12,652	3,378	3,185	405	327	2,953	Juin.
July.....	39,698	667	40,365	1,636	20,020	11,913	3,242	2,887	396	271	3,067	Juillet.
August.....	39,815	706	40,521	1,449	20,789	11,383	3,165	3,029	416	290	3,219	Août.
Sept.....	42,114	833	42,947	1,542	22,080	11,837	3,428	3,227	448	385	3,110	Sept.
Oct.....	45,184	891	45,980	1,798	23,754	12,389	3,971	3,272	494	397	3,078	Oct.
Nov.....	46,179	988	47,167	1,891	24,367	12,436	4,195	3,890	627	361	2,445	Nov.
Dec.....	45,093	1,106	46,199	1,781	23,307	12,436	4,207	3,366	674	432	2,237	Déc.
<b>Average..</b>	<b>44,029</b>	<b>857</b>	<b>44,886</b>	<b>1,583</b>	<b>22,689</b>	<b>13,021</b>	<b>3,493</b>	<b>3,243</b>	<b>508</b>	<b>349</b>	<b>3,384</b>	<b>Moyenne</b>



CANADA  
BUREAU FÉDÉRAL DE LA STATISTIQUE  
SECTION DES TRANSPORTS ET UTILITÉS PUBLIQUES

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RECENSEMENT INDUSTRIEL, 1930

# USINES ÉLECTRIQUES CENTRALES AU CANADA

(Préparé en collaboration avec le Service des forces Hydrauliques, et le Service Hydrométrique du ministère de l'Intérieur, et avec le concours de la Commission Hydroélectrique d'Ontario, la Commission des Eaux Courantes de Québec, la Commission de l'Énergie Électrique du Nouveau-Brunswick, la Commission de la Force Motrice de la Nouvelle-Écosse la Commission de la Force Motrice du Manitoba et la Commission de la Force Motrice de Saskatchewan)

Publié par ordre de l'Hon. H. H. Stevens, M.P.  
Ministre du Commerce



OTTAWA  
F. A. ACLAND  
IMPRIMEUR DE SA TRÈS EXCELLENTE MAJESTÉ LE ROI  
1932

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## PRÉFACE

Les données sur la production et distribution de l'électricité au Canada sont colligées et compilées par le Bureau, en vertu de la Loi de la Statistique, 8-9, George V, chap. 43.

Le personnel du Service des Forces Hydrauliques et du Bureau hydro-métrique du ministère de l'Intérieur a bien voulu vérifier les réponses au questionnaire et mettre à point le présent rapport conformément à une entente conclue lors de l'institution de notre recensement annuel des industries. Le Bureau doit aussi ses remerciements au Service d'Inspection de l'Electricité et du Gaz, du ministère du Commerce, ainsi qu'aux différentes commissions provinciales d'énergie électrique.

R. H. COATS,  
*Statisticien du Dominion.*

BUREAU FÉDÉRAL DE LA STATISTIQUE,  
OTTAWA, 10 mars 1932.



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### Usines Centrales Électriques

Le recensement de l'industrie des usines centrales électriques du Canada se fait chaque année sous l'empire de la Loi de la Statistique (1918, 8-9 George V, c. 43) au moyen de questionnaires adressés à toutes les centrales. Pas une seule donnée n'est recueillie sur place: les questionnaires renvoyés sont vérifiés et révisés par les fonctionnaires du Bureau Fédéral de la Statistique qui obtiennent par correspondance les détails qui pourraient manquer.

Pour les fins de ce recensement, les centrales électriques sont définies comme sociétés, municipalités, ou particuliers vendant ou distribuant de l'énergie électrique qu'ils produisent eux-mêmes ou qu'ils achètent dans le but de la revendre. Ces établissements sont divisés en deux catégories: (a) usines commerciales, exploitées par des sociétés ou des particuliers, et (b) usines municipales, exploitées par les municipalités, les provinces ou le gouvernement fédéral. Par rapport au système d'exploitation, ils sont encore classés comme (a) centrales génératrices, c'est-à-dire celles qui produisent elles-mêmes l'énergie destinée à la vente, et (b) centrales non-génératrices, celles qui achètent toute l'énergie destinée à la revente. Dans la dernière catégorie il y a 14 usines dont l'installation génératrice est classée comme outillage auxiliaire; 8 d'entre elles achètent toute leur énergie. La production globale des autres six ne se monte qu'à 2,419,000 kw-h. Deux de celles-ci ayant vendu leur installation génératrice au cours de l'année sont classées comme centrales non-génératrices, bien que leur production équivaille à plus de quatre-cinquièmes du chiffre ci-dessus. Ceci explique l'entrée du tableau 14 où figurent les chiffres de production des centrales non-génératrices.

Ces statistiques comprennent également les chiffres se rapportant à quelques établissements industriels engagés surtout dans l'exploitation minière, la fabrication de la pulpe et du papier, etc., mais qui vendent leur surplus d'énergie électrique. Les statistiques sur l'énergie produite par ce genre d'établissements ont été isolées dans la mesure du possible.

L'explication des entrées figurant à chaque tableau ainsi que leur composition est donnée plus loin en expliquant les détails des tableaux 3 à 15.

La production globale de toutes les centrales se chiffre par 18,093,802,000 kw-h. et n'a augmenté que de 7 p.c., soit de 131,287,000 kw-h. Déduction faite de l'énergie destinée à l'exportation, le rendement disponible pour l'usage au pays se monte à 48,118,000 kw-h. de moins qu'en 1929, chiffre qui équivaut à la production d'une journée environ. Cette diminution résulte, bien entendu, du marasme général qui sévit actuellement et aurait été beaucoup plus considérable si le nombre d'abonnés aux services d'éclairage n'avait pas augmenté.

Le tableau ci-dessous donne le rendement pour les années 1919 à 1930 des usines commerciales et municipales. L'important accroissement des usines municipales en 1923 est dû en grande mesure à la municipalisation d'un nombre d'usines commerciales.

## RENDEMENT DES USINES CENTRALES ÉLECTRIQUES

(En milliers de kilowatt-heures)

Année	Augmentation sur l'année précédente	Total	Usines commerciales	Usines municipales
	p.c.			
1930.....	0.7	18,093,802	12,937,014	5,256,788
1929.....	10	17,962,515	12,774,107	5,188,408
1928.....	12	16,337,804	11,460,974	4,876,830
1927.....	20	14,549,099	9,944,422	4,604,677
1926.....	20	12,093,445	7,797,380	4,295,965
1925.....	9	10,110,450	6,527,103	3,583,356
1924.....	15	9,315,277	6,024,312	3,290,965
1923.....	20	8,099,192	5,074,120	3,025,072
1922.....	20	6,740,750	5,119,676	1,621,074
1921.....	-5	5,614,132	4,316,272	1,297,860
1920.....	7	5,894,867	4,456,428	1,438,439
1919.....		5,497,204	4,191,223	1,305,981

Ce n'est que sur permis accordé par le Service d'Inspection de Gaz et d'Electricité, ministère du Commerce, que l'énergie électrique peut être exportée; ce même service a également juridiction sur les droits d'exportation imposés depuis le 1er avril 1925.

Au cours de l'exercice 1930-31, les droits d'exportation perçus se sont montés à \$395,544, comparativement à \$318,795 l'exercice précédent. Le tarif, sauf quelques exceptions, est de 3/100 d'un cent par kw-h. pour toute l'énergie exportée. Le tableau suivant donne la production par compagnie de l'énergie destinée à l'exportation ainsi que le total de l'énergie produite par chacune d'elles au cours de l'année civile 1930; les chiffres qui y figurent ne se rapportent qu'au rendement des centrales d'exportation exploitées par ces compagnies. Les différences entre les chiffres d'exportation et les chiffres de production équivalent aux fuites dans les lignes. Ces données ont été recueillies à même les rapports annuels du directeur des Services d'Inspection du Gaz et de l'Electricité.

## KILOWATT-HEURES PRODUITS PAR LES CENTRALES EXPORTATRICES DESTINÉS À L'EXPORTATION ET EXPORTÉS AUX ÉTATS-UNIS, EN 1930

Compagnies	Rendement total Kilowatt-heures	Destiné à l'exportation Kilowatt-heures	Exportations Kilowatt-heures
Hydro Electric Power Commission of Ontario.....	3,162,170,500	388,027,700	383,411,500
Hydro Electric Power Commission of Ontario (Surplus).....	410,166,800	410,166,800	401,827,777
Cedar Rapids Manufacturing and Power Co., Ltd.....	961,572,740	500,535,481	476,400,847
Canadian Niagara Power Company, Ltd.....	614,411,500	338,287,820	326,070,666
Western Power Company of Canada, Ltd.....	490,100	490,100	490,100
Ontario and Minnesota Power Co., Ltd.....	288,442,700	2,506	2,400
Maine and New Brunswick Electrical Power Co.....	16,054,865	10,782,200	10,782,200
British Columbia Electric Railway Co., Ltd.....	15,098,400	12,493,145	11,906,324
Northport Power and Light Co.....	149,241,276	40,643	35,369
Maritime Electric Company, Ltd.....	268,053	268,053	268,053
Southern Ontario Power Co.....	1,993,050	666,900	666,900
Northern British Columbia Power Co.....	13,321,400	490,020	367,176
The International Railway Co.....	451,714	51,360	51,260
Fraser Companies, Ltd.....	2,720,600	718,470	718,470
Detroit and Windsor Subway Company.....	6,927,700	6,603,570	6,603,570
	(Purchased)		1,200
Total.....	5,643,331,398	1,669,534,768	1,519,603,912
Nombre de kilowatt-heures produits pour l'exportation et exportés exclu- sivement par les centrales électriques.....	5,633,683,098	1,662,212,728	1,612,280,672

Bien qu'il y ait 276 usines génératrices thermiques, les 311 autres, soit 53 p.c. du nombre global, utilisant la force hydraulique produisent plus de 98 p.c. du rendement total. Les usines thermiques sont presque toutes de petites

centrales d'importance purement locale. Leur capacité moyenne n'est que de 782 kv-a., alors que les usines hydroélectriques desservent de vastes étendues où une ligne de transmission atteint souvent 250 milles de longueur et peut transporter jusqu'à 497,000 kv-a.

L'outillage hydroélectrique installé au Canada a une capacité globale de 6,125,012 hp. et se répartit comme suit: centrales électriques, 84 p.c.; pulperies et papeteries, 9.5 p.c.; scieries, meuneries et autres établissements industriels, 6.5 p.c.

Le tableau ci-dessous, dressé par le Bureau Fédéral des Forces Hydrauliques et de l'Hydrométrie donne les forces hydrauliques utilisables et la capacité de l'outillage installé à la fin de 1930 et de 1931.

FORCES HYDRAULIQUES DU CANADA, UTILISABLES ET DÉVELOPPÉES

Province 1	Energie quotidienne disponible à 80 p.c. de rendement		Installation turbo-électrique	
	Minimum du débit normal 2	Débit normal pendant six mois 3	1930	1931
	h.p.	h.p.	h.p.	h.p.
Ile du Prince-Edouard.....	3,000	5,300	2,439	2,439
Nouvelle-Ecosse.....	20,800	128,300	114,224	111,999
Nouveau-Brunswick.....	68,600	169,100	113,681	133,681
Québec.....	8,459,000	13,064,000	2,718,130	3,100,330
Ontario.....	5,330,000	6,940,000	2,088,055	2,145,205
Manitoba.....	3,309,000	5,344,500	311,925	390,925
Saskatchewan.....	542,000	1,082,000	42,035	42,035
Alberta.....	390,000	1,049,500	70,532	70,532
Colombie Britannique.....	1,931,000	5,103,500	630,792	655,992
Yukon et Territoires du Nord-Ouest.....	294,000	731,000	13,199	13,199
Canada.....	20,347,400	33,617,200	6,125,012	6,666,337

Les chiffres aux colonnes 2 et 3 sont établis exclusivement sur des chutes et rapides dont la tête d'eau ou la captation potentielle sont définitivement connues ou suffisamment établies. Bon nombre de forces hydrauliques, grandes et petites, disséminées par tout le Canada n'ont pas été mesurées jusqu'ici, et la construction de nouveaux bassins d'emmagasinage et autres installations de réglage augmenteront la puissance utilisable. Comme le rendement de l'outillage installé est presque toujours de beaucoup supérieur à la force théorique continue de la chute d'eau, on peut placer le maximum de l'agencement des forces hydrauliques constatées du Canada à 43,700,000 hp. ou à 6.5 fois l'installation de 1931.

TABLEAU 1.—RÉSUMÉ COMPARATIF 1922-1930

Au cours de la période 1922 à 1930, durant laquelle l'industrie a été des plus active, le nombre de stations centrales n'a augmenté que de 12.5 p.c. tandis que les capitaux engagés ont doublé. L'accroissement du nombre d'abonnés a été de 52.6 p.c., et celui du rendement de 168.4 p.c. Déduction faite de l'énergie exportée aux Etats-Unis, l'augmentation, plus la quantité importée, équivaut à 185 p.c., ce qui constitue un fort accroissement par abonné. L'industrie de la pulpe et du papier qui consomme d'énormes quantités d'énergie a eu un essor rapide et emploie des quantités toujours croissantes d'énergie produite par les usines centrales. Le rendement des moteurs installés dans ces usines et consommant de l'énergie achetée a augmenté durant cette période de 345 p.c. En plus, les chaudières électriques dont on se sert dans cette industrie consomment un plus gros volume d'électricité qu'auparavant. L'utilisation moyenne d'autres consommateurs d'électricité, en force motrice et en éclairage, tant domestique que commerciale, accuse également un fort accroissement, de



sorte qu'en dépit de la dépression générale, l'industrie des centrales électriques a pu enregistrer les augmentations suivantes: capitaux engagés, 7.8 p.c.; recettes, 2.6 p.c.; longueur des lignes, 13.8 p.c.; nombre d'abonnés, 3.3 p.c.; production, 0.7 p.c.; capacité génératrice, 10.2 p.c. La capacité moyenne de tout l'outillage, sauf celle des dynamos à courant continu, a également augmenté. Celle des roues hydrauliques qui précédemment à 1922-1930 se montait à 3,358 hp. a atteint 6,503 hp.; tandis que les turbines à vapeur (2,184 hp.) ont atteint 3,291 hp. et les dynamos à courant alternatif (2,014 kv-a.) 4,309 kv-a. Quant aux dynamos à courant continu, leur capacité globale a diminué de 57 kw. à 28. Les machines à vapeur (mouvement alternatif) accusent depuis quelques années, sauf une, des diminutions assez régulières tant en nombre qu'en rendement, tandis que les turbines à vapeur jouissent d'une popularité croissante. Bien que le nombre des moteurs à explosion en usage baisse depuis trois ans, leurs dimensions vont en augmentant: le rendement moyen, de 50 hp. en 1927, atteint en 1930 79 hp. De 1922 à 1927, par contre, le nombre en augmentait continuellement alors que le rendement en diminuait.

TABLEAU 2.—RELEVÉS DES PRINCIPALES DONNÉES, 1929-1930

Les capitaux engagés dans les usines commerciales équivalent à 63.60 p.c. du total des fonds placés dans cette industrie, contre 64.96 en 1929, alors que la proportion des recettes globales a augmenté de 57.68 à 58.13 p.c. et celle du chiffre de production de 71.12 à 71.50 p.c. La proportion du personnel a baissé de 51.11 à 50.05 p.c. et celle de la longueur des lignes de 52.10 p.c. à 48.38. Les usines municipales desservent 53.62 p.c. des abonnés, comparativement à 52.84 en 1929. Les comparaisons entre les consommateurs d'éclairage commercial et de force motrice sont influencées par les classifications; voir note explicative au tableau 8.

TABLEAU 3.—USINES GÉNÉRATRICES

La définition d'une usine centrale électrique, telle qu'adoptée pour les fins de ce recensement, est donnée au commencement de ce rapport. Cependant, quelques organisations exploitent plusieurs réseaux qui se trouvent dans des municipalités différentes et qui ne sont pas raccordés par des lignes de transmission, tandis que dans d'autres cas plusieurs municipalités sont desservies par une seule usine génératrice. Chaque organisation est inscrite comme une seule ou plusieurs, selon le rapport qu'elle fait. Si un établissement commercial fait un rapport distinct pour chacune de ses filiales, chacune de celles-ci est compté comme une unité, tandis que si le rapport couvre toutes les compagnies, il n'est fait mention que d'un seul établissement. Le mode d'administration et de direction en est si varié qu'il ne serait pas pratique d'agir autrement. Les usines génératrices figurant dans ce tableau sont des usines individuelles, sans tenir compte du propriétaire ou de la localité. Dans certains cas, une seule compagnie exploite deux usines ou plus, situées près ou loin les unes des autres.

Le nombre des usines hydrauliques a augmenté de 11, tandis que celui des usines thermiques a diminué de 9. Il y a une usine hydraulique de moins parmi les usines commerciales et deux usines thermiques de plus, tandis que le nombre des usines centrales hydrauliques exploitées par les municipalités a augmenté de 12 et celui des autres a diminué de 11. La diminution nette des centrales municipales est de 5; pour la Saskatchewan seule, elle est de 11, la Commission d'Énergie de la Saskatchewan desservant 15 municipalités qui auparavant exploitaient leurs propres usines.

TABLEAU 4.—CAPITAUX ENGAGÉS

Le capital engagé dans l'industrie paraît sous quatre rubriques, savoir: production, transmission, distribution et divers. La production comprend les capitaux immobilisés dans les usines, les emplacements, les barrages, les portes

d'écluse, les canaux de fuite, les réservoirs pour l'emmagasinement et le réglage du débit des eaux, réservoirs de surcharge et bassins d'emmagasinement, etc., ainsi que l'outillage des usines génératrices à l'exception de l'outillage de transmission et des survolteurs. La transmission comprend les usines de réception et leurs emplacements, les droits de passage des lignes de transmission et les survolteurs. La distribution embrasse les centrales de distribution et leurs emplacements ainsi que le droit de passage des lignes de transmission, les tableaux de distribution et les dévolteurs des stations distributrices, les lignes de distribution, les transformateurs de ligne, les compteurs, etc. Sous la rubrique «divers» figurent les fonds placés dans les bureaux et leurs emplacements, l'ameublement, les matériaux, les fournitures, les effets recevables et l'argent en caisse. Le total représente tout le capital engagé dans l'industrie. Le capital global représente, au 31 décembre, les stations en exploitation, et ne comprend pas les placements faits par de nouveaux établissements pas encore en exploitation, mais embrasse, par contre, les déboursés faits par ces établissements qui exploitent des usines en vue d'y installer de l'outillage additionnel. Par conséquent, les moyennes par hp. et par kv-a. sont augmentées par l'inclusion de tel capital. Les moyennes de capital engagé par mille de ligne de distribution et de transmission sont plus indicatives des divers types de ligne dans chaque province que celles du coût comparatif de ces divers types.

Les capitaux engagés dans les centrales électriques du Québec dépassent ceux de l'Ontario; ils se chiffrent respectivement par \$445,381,055 et \$440,872,470. L'accroissement entier couvre l'installation génératrice; les immobilisations ontariennes dans l'outillage de transmission et de distribution restent les plus importantes. Les immobilisations globales dans cette industrie ont augmenté cette année de \$82,468,484 (contre \$98,811,929 et \$90,094,318 en 1929 et 1928 respectivement), dont \$38,118,801 se répartissent parmi les centrales commerciales et \$44,349,683 parmi les centrales municipales. En dépit du nombre réduit des usines thermiques, les capitaux engagés ont augmenté de \$8,652,964, dont \$6,859,995 pour les centrales de la Saskatchewan. Afin de ne pas divulguer des renseignements d'ordre confidentiel, les statistiques de la seule usine hydraulique de cette province figurent parmi les données se rapportant au Manitoba. L'énergie produite par cette usine qui est située tout près des limites du Manitoba, est d'ailleurs utilisée exclusivement dans cette province.

#### TABLEAU 5.—RECETTES

Les questionnaires comportent la répartition des abonnés, de la consommation et des recettes sous les rubriques suivantes: (1) Service agricole; (2) Service domestique, comprenant éclairage et tous autres usages de courant dans les habitations et logements particuliers; (3) Eclairage commercial; (4) Force motrice, consommation de 50 kw-h. ou moins; (5) Force motrice, consommation de plus de 50 kw-h.; (6) Ventes aux sociétés distributrices; (7) Eclairage des rues, y compris courant fourni gratuitement pour cette fin et pour l'éclairage des édifices publics, etc. Bien que les renseignements obtenus ne soient pas tout à fait complets, on a pu recueillir des données de haut intérêt, entre-autres que les fuites d'un réseau ayant 250 milles de lignes de transmission et 185 milles de lignes de distribution fournissant en tout 11,000,000 de kw-h. pouvaient équivaloir à 35 p.c. Les constatations ne sont toutefois pas suffisamment complètes pour permettre d'en tirer des conclusions définitives. Les recettes moyennes par kw-h. pour les services domestiques et agricoles est de 2.29 cents, comparativement à 6.03 pour le service domestique aux Etats-Unis. On obtient ces moyennes en divisant les recettes globales provenant de ces catégories d'abonnés par la consommation telle qu'enregistrée au compteurs individuels; par conséquent les fuites n'y sont pas comprises. Le tarif très réduit pour la cuisine et l'éclairage dans la ville de Winnipeg influence la moyenne du Manitoba (1.10 cents) qui est de beaucoup la plus basse parmi toutes les

provinces, quoique si l'on tient compte de tous les services ainsi que des fuites, les centrales du Québec ont reçu 49 cents et celles du Manitoba 66. Les quantités énormes utilisées par les pulperies, les papeteries et autres établissements industriels grands consommateurs d'énergie électrique influencent les moyennes pour tous usages. La moyenne annuelle des paiements annuels des gros consommateurs de force motrice est de \$11,588 dans le Québec et de \$738 au Manitoba. Les statistiques se rapportant à l'Ontario ne se prêtent pas à l'étude comparative, les données sur les consommateurs de courant desservis par le réseau provincial couvrant tous les abonnés, petits et gros. Toutefois, les statistiques des services domestiques et agricoles sont uniformes dans chaque province.

TABLEAU 6.—DÉBOURSÉS

Les déboursés se répartissent comme suit: (1) salaires et gages; (2) combustible; (3) impôts; (4) coût de l'énergie. Cette dernière entrée représente un déboursé interindustriel et pourrait bien être omise des dépenses faites par l'industrie prise dans son ensemble. Elle indique toutefois les achats d'énergie par les diverses catégories d'usines. Les salaires et gages, se chiffrant par \$27,287,443, accusent un accroissement de \$2,455,622 comparativement à 1929. La consommation de combustible a baissé de \$421,016, tandis que les impôts ont augmenté de \$562,616 ou 13 p.c., dont la plus forte partie a été à la charge des usines commerciales. Les redevances payées par les systèmes municipaux comprennent les taxes des usines commerciales achetées par le système provincial de l'Ontario et exploitées par celui-ci, et, au Manitoba, dans la Saskatchewan et l'Alberta, les impositions sur les systèmes municipaux des villes de Winnipeg, Saskatoon, Lethbridge et Calgary. Les impôts dont sont grevés les autres systèmes municipaux sont relativement peu élevés.

TABLEAU 7.—PERSONNEL

Le personnel a augmenté de 1,693, soit de 10.5 p.c., au cours de l'année. Comme il s'agit ici de moyennes mensuelles, on ignore s'il y a eu un fléchissement à la fin de l'année ou non. Toutefois, c'est là une des rares industries dont le personnel a augmenté. L'augmentation a été générale dans toutes les provinces, Ontario et Québec venant en tête avec des accroissements respectifs de 472 et 469.

TABLEAU 8.—CONSOmmATEURS

Comme nous l'avons déjà dit au chapitre du tableau 5, la classification complète des abonnés n'a pas été effectuée par toutes les centrales. Ceci s'applique surtout aux municipalités ontariennes qui font partie du système provincial et où tous les consommateurs d'énergie sont compris dans un seul et même chiffre. Il a également fallu inclure les services agricoles parmi les abonnés aux services domestiques. Il y a des centrales qui font l'installation de plus d'un compteur par logement, séparant ainsi l'éclairage de la cuisine et du chauffage; d'autres n'utilisent qu'un compteur pour tous les usages domestiques. Afin de les mettre tous sur une base égale, chaque logement ou ménage où l'on se sert d'électricité compte comme un seul abonné, sans égard au nombre de compteurs ni à l'usage que l'on en fait. Pour obtenir le nombre de consommateurs de courant destiné à l'éclairage des rues, chaque municipalité utilisant de l'électricité à cette fin figure comme un seul consommateur, sans égard au mode de paiement ni à la provenance du courant. Dans bon nombre de municipalités l'énergie est fournie soit gratuitement ou moyennant paiement par l'usine municipale de l'endroit.



Vu la classification modifiée il n'y a que le total des consommateurs—abonnés domestiques et consommateurs d'énergie pour l'éclairage des rues—qui puisse être comparé aux données de 1929. L'accroissement global est de 51,883, dont 24,843 pour les services domestiques et 62 pour l'éclairage des rues.

Le recensement de 1931 place à 1,603 le nombre de cités, villes et villages incorporés. Comme il y a en tout 1,609 municipalités se servant d'électricité pour éclairer leurs rues, on peut dire que presque toutes les municipalités incorporées et quelques unes qui ne le sont pas en font usage. Il se peut bien, en outre, que quelques centrales n'aient pas fourni une liste complète des municipalités qu'elles desservent.

#### TABEAU 9.—LONGUEUR DES LIGNES SUR POTEAUX

On fait ici une distinction entre deux catégories de canalisations aériennes, savoir: (a) lignes de transmission, comprenant les canalisations qui vont de l'usine à la station réceptrice, et (b) lignes de distribution, comprenant les lignes reliant les stations réceptrices, les centrales de distribution et les abonnés, et, dans les cas où le survoltage ne se fait pas par une station quelconque, toute la longueur de la canalisation aérienne de ce réseau est comprise dans la longueur de la ligne de distribution. La longueur de tous ces parcours est mesurée, sans égard au nombre de circuits que transportent les poteaux et pylônes. L'accroissement global s'élève à 5,901 milles (13.8 p.c.) dont 2,610 pour la transmission et 3,291 pour la distribution. La longueur des canalisations de transmission de la Saskatchewan a plus que doublé; de 1,006 milles qu'elle était, elle a atteint 2,112. Ce sont les stations municipales qui ont profité de la presque totalité de cet accroissement, soit 1,147 milles, tandis que les stations commerciales n'accusent que 34 milles de gain. L'augmentation la plus importante a été enregistrée par les stations ontariennes, leur lignes de transmission ayant augmenté de 298 milles et leur lignes de distribution de 1,958.

#### TABLEAUX 10-11-12.—INSTALLATIONS

Les installations des usines génératrices comportent deux divisions, l'outillage principal et l'outillage auxiliaire. Celui-ci comprend toutes les machines à vapeur, turbines et moteurs à explosion et dynamos montés dans les usines hydroélectriques, ainsi que l'outillage entier des centrales non génératrices. Le reste de l'outillage figure sous la rubrique «installations principales» et comprend les roues hydrauliques, turbines et générateurs des usines hydroélectriques et tout l'outillage des usines thermiques. Il se peut que les unes et les autres tiennent en réserve certain outillage auquel elles n'ont recours que dans des cas d'urgence ou pour suffire à des accroissements imprévus de la consommation; cet outillage est toutefois classifié comme installation principale. Bien que quelques rares usines hydroélectriques utilisent leurs machines à vapeur avec plus ou moins de régularité durant les périodes d'eau basse ou de très forte consommation, la plupart sont réservées pour les cas de stricte urgence. Le rendement moyen des installations auxiliaires en 1930 n'a été que de 221 kw-h. par kv-a., la période d'utilisation quotidienne équivalant à une moyenne de trente-cinq minutes environ. L'installation auxiliaire globale est presque la même qu'il y a un an, les diminutions en Nouvelle-Ecosse et dans l'Ontario étant contre-balancées par des accroissements dans le Québec, l'Alberta et la Colombie Britannique. L'outillage principal accuse par contre un accroissement de 475,553 hp. durant l'année, chiffre-record qui n'a été dépassé qu'en 1925 avec 720,077 hp. L'augmentation en 1930 est due au fait que nombre d'usines en voie de construction au cours de 1928 et 1929 ont été terminées.

Les installations génératrices de l'Île du Prince-Edouard n'ont ni augmenté ni diminué, tandis que la Nouvelle-Ecosse enregistre un accroissement net de 48,841 hp., y compris les 33,800 hp. installés par la Commission provinciale. Comme l'exercice de celle-ci se termine le 31 octobre, tout outillage installé au cours des mois de novembre et décembre 1929 est compris dans les chiffres



de l'année suivante. Ses nouveaux agencements sur la Mersey comprennent trois usines situées à Big Falls (12,700 hp.), Lower Lake Falls (10,600 hp.) et Upper Lake Falls (6,000 hp.) et une quatrième sur la Tusket (3,000 hp.), toutes en exploitation depuis novembre et décembre 1929. En outre, la Commission a augmenté le rendement de l'usine Guzzle, également sur la Mersey et appartenant jusqu'en 1928 à la ville de Liverpool, en remplaçant l'ancienne unité de 700 hp. par deux nouvelles de 750 hp. chacune. Cette installation est comprise dans les chiffres de 1930. L'Avon River Power Company a mis en exploitation son usine de Black River qui est dotée d'une turbine hydraulique de 4,500 hp., la municipalité de Truro a ajouté à son installation une turbine à vapeur de 1,426 hp. et la Sea Bord Power Company a commencé l'exploitation de son usine où tourne une turbine à vapeur de 10,000 hp. Le Comité de l'électricité du comté de Digby a mis en exploitation sa deuxième usine située sur la Sissiboo (6,000 hp.). Au Nouveau-Brunswick, la municipalité d'Edmunston a augmenté son installation par une turbine hydraulique de 1,050 hp. Voici maintenant les nouvelles installations importantes effectuées dans la province de Québec: 3 turbines hydrauliques de 30,000 hp. chacune dans la nouvelle usine de la McLaren Quebec Power Company située à High Falls sur la Lièvre; 1 unité de 5,900 hp. dans l'usine Metis Falls de la Lower St. Lawrence Power Company; 2 turbines hydrauliques au rendement de 7,500 hp. chacune, Montreal Island Power Company; 1 roue hydraulique de 2,000 hp. pour la nouvelle usine de la Southern Canada Power Company située à Burrough Falls. Dans l'Ontario: deux roues hydrauliques de 6,500 hp. chacune dans l'usine Upper Notch située sur la rivière Montreal et appartenant à la Northern Ontario Power Company; une roue hydraulique de 11,000 hp. installée par l'Algoma District Power Company dans son usine de Michipicoten Falls; une nouvelle roue, la dixième, ayant une capacité de 58,000 h.p. installée par la Commission Hydroélectrique dans son usine de Queenston, ce qui en porte le rendement global à 560,000 hp. et 497,000 kw-h. et en fait l'usine la plus importante du Canada; deux roues hydrauliques de 18,000 hp. chacune dans la nouvelle usine Alexander qui fait partie du système Thunder Bay; une unité de 5,000 hp. dans l'usine Ear Falls du réseau Nord de la Commission. Au Manitoba, il n'y a pas eu d'accroissement important, excepté que l'usine de 42,000 hp. appartenant à la Churchill River Power Company et mise en exploitation au mois de juin est comprise parmi les centrales manitobaines. Les nouvelles installations dans la Saskatchewan ne se rapportent qu'aux usines thermiques et comprennent une turbine à vapeur de 10,000 hp. dans l'usine à Saskatoon appartenant à la Commission provinciale, une turbine à vapeur de 2,000 hp. pour l'usine Estevan de la Dominion Electric Power Company, une autre de 22,500 hp. pour l'usine municipale de Regina et une troisième de 1,000 hp. pour la station municipale de Weyburn. La Commission d'Energie électrique de la Province a fait installer dans diverses municipalités plusieurs moteurs à pétrole, dont tous, sauf celui de Swift Current qui a 1,250 hp., sont à faible puissance. La seule installation importante dans l'Alberta est celle d'une nouvelle unité de 18,000 hp. montée par la Calgary Power Company dans son usine Ghost sur la Bow. En Colombie Britannique, la Northern British Columbia Power Company a installé une turbine hydraulique de 6,000 hp. dans sa nouvelle usine située sur la rivière Falls, la Western Power Company a commencé l'exploitation de son usine située à Ruskin qui est dotée d'une turbine hydraulique de 45,000 hp., et la Vancouver Island Power Company a augmenté son installation sur la rivière Jordan d'une unité de 18,000 hp. La British Columbia Electric Railway Company a ajouté une roue hydraulique de 2,000 hp. à son installation sur la Jordan et la West Kootenay Power and Light Company a fait installer en 1929 une troisième unité de 25,000 hp. dans son usine de South Slooan; cette dernière installation n'a toutefois pas figuré dans les rapports précédents. Durant 1930 le nombre de roues hydrauliques ayant un rendement supérieur à 25,000 hp. a augmenté de six, alors que celui des roues ayant une capacité inférieure à 500 hp. a baissé de dix. Ces change-

ments, ajoutés à d'autres qui se sont produits, ont porté la moyenne du rendement global de toutes les roues hydrauliques qui était de 6,193 hp. en 1929, à 6,503. Les plus forts accroissements des turbines à vapeur se rapportent également aux unités puissantes, les nouvelles installations comprenant trois turbines au rendement de 5,000 à 10,000 hp.

TABLEAU 14.—PRODUCTION

Le chiffre de la production équivaut au rendement des usines génératrices, moins la puissance utilisée pour l'exploitation de ces dernières et comprend par conséquent les fuites dans les transformateurs et dans les canalisations transportant le courant destiné aux consommateurs. Toutes les grandes centrales mesurent leur production au compteur et quant aux stations qui n'emploient pas de watt-heure-mètres, les kw-h. sont calculés aussi exactement que possible. Les capacités indiquées en kv-a. sont celles des dynamos à la fin de l'année dans les centrales génératrices tant principales qu'auxiliaires, mais les rapports entre la production et la capacité maxima ont été calculés à base de la production en kw-h. et de la capacité indiquée des dynamos multipliée par le nombre d'heures que les dynamos ont été en mouvement pendant l'année. Ainsi, la capacité annuelle maxima d'une dynamo de 1,000 kv-a. se chiffre par 8,760,000 kw-h., mais si elle a été installée le 30 novembre, elle ne serait que de 744,000 kw-h. Ces rapports se prêtent par conséquent à des comparaisons immédiates, sans égard à la période où le rendement de l'industrie a subi d'importants accroissements, la hausse ou la baisse des rapports indiquant la proportion entre l'offre et la demande à base du kw-h. La diminution du rendement par rapport à la capacité équivaut en 1930 à 47 p.c. comparativement à 50 en 1929. Les usines en voie de construction lorsque les effets de la dépression actuelle commencèrent à se faire sentir furent achevées, mais la demande n'augmenta pas en proportion égale à l'accroissement en capacité. Elle demeura même presque stationnaire. Un rapport de 50 p.c. signifie que si les générateurs des installations principales et auxiliaires avaient été en pleine activité pendant l'année entière à leur capacité indiquée, le rendement atteint aurait été presque le double du rendement effectif (le volume utilisé par l'usine doit nécessairement en être déduit). La proportion est malgré tout assez élevée : la proportion correspondante des stations américaines, basée sur la capacité à la fin de l'année, n'était que de 33 p.c. en 1927. Les variations sur les marchés respectifs expliquent, il va sans dire, une forte partie de cette différence. Une importante usine canadienne qui vend une grande partie de son énergie aux pulperies et aux papeteries donne un rapport de 70 p.c. et quelques autres usines importantes plus de 50 p.c., ce qui augmente de beaucoup le rapport atteint par l'ensemble des usines. L'Ontario et l'Alberta accusent des diminutions en rendement global de 292,523,000 et 1,275,000 kw-h. respectivement. La diminution en production des usines du Niagara, telle que l'indiquent les tableaux des exportations, dépasse la réduction globale enregistrée dans l'Ontario. Déduction faite de l'énergie exportée aux États-Unis et ajoutant les importations provenant de ce pays et de la province de Québec, le volume d'énergie disponible pour l'usage de l'Ontario est de 7,299,374,000 kw-h., contre 7,621,767,000 en 1929.

C'est la première fois que nous fournissons des données sur la vente de l'énergie produite, données qui deviendront de plus en plus exactes au fur et à mesure que les usines répartissent les chiffres de la consommation par catégories d'abonnés. Les fuites dans les lignes sont comprises dans la dernière entrée représentant la différence entre le rendement et la consommation domestique globale, y compris les services agricoles et l'éclairage commercial. Bien que l'énergie passant par les compteurs des services domestiques n'équivaille qu'à 8 p.c. de la production totale, les recettes provenant de cette source se montent à \$34,114,680 ou à 27 p.c. des recettes globales ce qui constitue une moyenne de 2.29 cents le kw-h. Si les fuites dans les lignes y étaient comprises,

le pourcent du rendement global serait plus élevé et la moyenne des recettes par kw-h. provenant de ses services se trouverait diminuée. L'Ontario a consommé plus de la moitié du courant domestique global et est suivi du Manitoba. La province de Québec vient troisième. Le tarif modique, surtout pour la cuisine et le chauffage, dans l'Ontario et le Manitoba contribue le plus à cette consommation énorme. Comme nous l'avons déjà dit, le chiffre de production de la seule usine hydroélectrique de la Saskatchewan—elle est située près des limites du Manitoba—est comprise dans les chiffres se rapportant à cette dernière province.

#### TABLEAU 15.—COMBUSTIBLE

La consommation du combustible se monte à \$2,594,879 dont les deux-cinquièmes sont utilisés par les usines de la Saskatchewan. Comparativement aux chiffres de 1929, la consommation de la houille n'a baissé que de 33,868 tonnes (6.3 p.c.), tandis que celle de pétrole accuse une diminution de 7,302,143 gallons (58 p.c.) et celle du gaz naturel un fléchissement de 288,201 pieds cubes (43 p.c.). Le volume global de la houille et des autres combustibles traduit en houille équivalant à 477,882 tonnes dont on a tiré 344,982,000 kw-h. d'énergie. La moyenne de consommation en houille équivalait donc à 2.77 livres le kw-h., comparativement à 1.62 livres aux Etats-Unis. Ce rendement plus élevé des Etats-Unis est dû au fait que les usines y sont plus vastes et que l'exploitation s'y fait d'une façon plus continue. Alors qu'aux Etats-Unis les deux tiers environ de la production globale se font au moyen de combustible, la proportion au Canada n'équivaut même pas à 2 p.c. Les machines utilisées au Canada sont en général de dimensions plus faibles et ne marchent qu'une bien petite partie de la journée, le rendement par rapport à la capacité n'étant que de 17.7 p.c.





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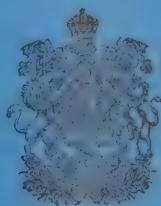
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## RECENSEMENT INDUSTRIEL, 1930

# USINES ÉLECTRIQUES CENTRALES AU CANADA

(Préparé en collaboration avec le Service des forces Hydrauliques, et le Service Hydrométrique du ministère de l'Intérieur, et avec le concours de la Commission Hydroélectrique d'Ontario, la Commission des Eaux Courantes de Québec, la Commission de l'Énergie Électrique du Nouveau-Brunswick, la Commission de la Force Motrice de la Nouvelle-Écosse la Commission de la Force Motrice du Manitoba et la Commission de la Force Motrice de Saskatchewan)

Publié par ordre de l'Hon. H. H. Stevens, M.P.  
Ministre du Commerce



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CANADA

**DOMINION BUREAU OF STATISTICS**  
**TRANSPORTATION & PUBLIC UTILITIES BRANCH**

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(CENSUS OF INDUSTRY, 1931)

*Electric power statistics*

**CENTRAL ELECTRIC STATIONS**  
**IN CANADA**

*1931*

(Prepared in collaboration with the  
Dominion Water Power and Hydrometric  
Bureau, Department of the Interior)



Published by Authority of the HON. H. H. STEVENS, M. P.,  
Minister of Trade and Commerce.

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OTTAWA  
1933



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DOMINION BUREAU OF STATISTICS  
TRANSPORTATION AND PUBLIC UTILITIES BRANCH

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CENTRAL ELECTRIC STATION INDUSTRY, 1931

Due to the necessity of curtailing expenses this report for 1931 has been abridged, particularly in the analysis of the data. The basic data of the tables have been retained so that records of engineers and other interested persons will not be impaired. The reader is referred to previous reports for definitions of the various terms, divisions and classifications which are unchanged in this report.

The total output of all stations during 1931 amounted to 16,330,867,000 kilowatt hours which was a decrease of 1,762,935,000 kilowatt hours, or 9.7 per cent, from the previous year's output. When the decrease in energy produced for export is deducted the output available for use in Canada was less than for 1930 by 1,374,070 kilowatt hours, or 8.4 per cent. This reduction, of course, was due to the business depression and would have been worse but for the increase in lighting customers.

The exports and quantities produced for export are shown below. The differences in these two sets of figures are the line losses between the power plant and the point of export. The export tax for the fiscal year ended March 31, 1932, amounted to \$183,537, as against \$395,544 for the previous year.

KILOWATT HOURS GENERATED BY EXPORTING STATIONS, PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES, 1931

Company	Total Output	Produced for Export	Exported
	Kilowatt Hours	Kilowatt Hours	Kilowatt Hours
Hydro Electric Power Commission of Ontario .....	2,401,867,200	370,878,300	366,303,300
Hydro Electric Power Commission of Ontario (Surplus) ..	172,036,100	172,036,100	169,152,943
Cedar Rapids Manufacturing and Power Co., Ltd. ....	716,377,271	410,257,488	389,071,521
Canadian Niagara Power Company, Ltd. ....	490,148,000	293,685,700	277,815,131
Canadian Niagara Power Company, Ltd. (Surplus) .....	1,630,300	1,630,300	1,630,300
Western Power Company of Canada, Ltd. ....	345,389,700	5,951	5,700
Ontario and Minnesota Power Company, Ltd. ....	14,265,232	8,510,400	8,510,400
Maine and New Brunswick Electrical Power Company ....	16,657,397	13,966,498	12,244,594
British Columbia Electric Railway Co., Ltd. ....	80,092,300	129,157	95,057
Northport Power and Light Company .....	283,797	283,797	283,797
Maritime Electric Company, Ltd. ....	1,965,200	289,818	289,818
Southern Canada Power Company .....	14,390,800	505,580	464,797
Northern British Columbia Power Company .....	344,694	57,580	57,580
The International Railway Company .....	2,641,400	652,448	652,448
Fraser Companies, Ltd. ....	8,328,900	8,306,300	8,289,000
Detroit and Windsor Subway Company .....	(Purchased)	458,400	458,400
<b>TOTAL</b>	<b>4,266,918,291</b>	<b>1,281,653,817</b>	<b>1,235,324,786</b>
Kilowatt hours produced for export and exported by central electric stations only .....	4,258,589,391	1,273,347,517	1,227,035,786

Below is a table compiled by the Dominion Water Power and Hydrometric Bureau showing the potential water power on two bases and the capacity of equipment installed at the close of 1931 and 1932.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24-hour power at 80% efficiency		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 3 1	1 9 3 2
(1)	(2)	(3)	(4)	(5)
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island .....	3,600	5,300	2,439	2,439
Nova Scotia .....	20,800	128,300	111,999	112,167
New Brunswick .....	68,600	169,100	133,681	133,681
Quebec .....	8,459,000	13,064,000	3,100,330	3,357,320
Ontario .....	5,330,000	6,940,000	2,145,205	2,208,105
Manitoba .....	3,309,000	5,344,500	390,925	390,925
Saskatchewan .....	542,000	1,082,000	42,035	42,035
Alberta .....	390,000	1,049,500	70,532	71,597
British Columbia .....	1,931,000	5,103,500	655,992	713,792
Yukon and Northwest Territories .....	294,000	731,000	13,199	13,199
CANADA .....	20,347,400	33,617,200	6,666,337	7,045,260

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals.

With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power, or approximately 6.2 times the 1932 installation.

The greater part (86 per cent) of this hydraulic power is in central electric stations, but the pulp and paper mills contain 9 per cent and this industry also purchases enormous quantities of power from the central electric stations; the power houses of several large mills are operated as central electric stations. During 1931 pulp and paper mills purchased 5,166,000,000 kilowatt hours from central electric stations, or nearly one-third of their total output. After deducting line losses and exports to the United States, these purchases would probably be 40 per cent of the total consumption by all classes of consumers. The increase in consumption by the pulp and paper industry has been rapid, the capacity of motors driven by purchased power increasing by over 300 per cent since 1923 and aggregating 1,007,240 horse-power in 1931. The consumption in electric boilers has also increased very rapidly, especially in recent years, and in 1931 boilers with a rated capacity of 883,450 kilowatts consumed 2,032,283,000 kilowatt hours, or 39 per cent of the total power purchased by the mills. The electro-chemical plants in Canada are also large consumers of electric energy and during 1931 purchased 2,223,000,000 kilowatt hours from central electric stations which was 13.6 per cent of the total output. There were sixteen electro-chemical plants which purchased power and three of them, the Aluminum Company of Canada at Arvida and Shawinigan, Quebec, the Consolidated Mining and Smelting Company at Trail, British Columbia, and the American Cyanamid Company at Niagara Falls, Ontario, purchased 1,508,000,000 kilowatt hours.



Both the number and average consumption of domestic customers have also increased steadily and the consumption averaged 1,170 kilowatt hours per customer in 1931. Flat rates as low as \$2.00 per kilowatt per month for water heaters in Winnipeg were a large factor in the high average of 3,610 kilowatt hours per annum per domestic customer in Manitoba. In the majority of municipalities in Ontario all electricity for domestic use is measured through one meter on block meter rates and the net rate for the third block is as low as .9 cent in a large number of municipalities and even lower in a few. These low rates affected the average consumption for Ontario which was 4,497 kilowatt hours. The averages for the other provinces in kilowatt hours were: British Columbia, 880; Saskatchewan, 806; Quebec, 595; Alberta, 531; New Brunswick, 520; Nova Scotia, 423; and Prince Edward Island, 337. The average revenue per kilowatt hour for domestic service for all Canada was 2.25 cents, as compared with 5.78 cents in the United States. Manitoba had the lowest average of 1.04 cents and for the other provinces the averages were: Ontario, 1.78 cents; British Columbia, 3.01 cents; Quebec, 3.62 cents; Saskatchewan, 5.09 cents; Alberta, 5.70 cents; New Brunswick, 5.10 cents; Nova Scotia, 6.02 cents, and Prince Edward Island, 8.98 cents.

There have been increasing amounts of power exported from Quebec to Ontario, but the exports to the United States have decreased during the past two years, especially exports of surplus power from the Niagara plants. The following table shows the actual consumptions, including the line losses within each province, computed by adding the provincial imports to the production figures and deducting the exports.

CONSUMPTION OF ELECTRIC ENERGY (INCLUDING LINE LOSSES)  
(Thousands of Kilowatt Hours)

Province	1931	1930	Increase + Decrease -	
			Kilowatt Hours	Per Cent
Prince Edward Island .....	4,413	3,591	+ 822	22.9
Nova Scotia .....	257,573	223,421	+ 34,152	15.3
New Brunswick .....	383,614	313,521	+ 70,093	22.4
Quebec .....	6,358,822	7,278,438	- 919,616	12.6
Ontario .....	5,446,945	6,110,732	- 663,787	10.9
Manitoba .....	1,084,919	991,348	+ 93,571	9.4
Saskatchewan .....	134,014	137,217	- 3,203	2.3
Alberta .....	205,305	204,271	+ 1,034	.5
British Columbia and Yukon .....	1,225,385	1,217,417	+ 7,968	.7
CANADA .....	15,100,990	16,479,956	- 1,378,966	8.4

Table 1 - Comparative Summary, 1931 - 1923

Principal Data by Class of Station	1931	1930	1929	1928
<b>Electric Power Plants-</b>				
Total .....	559	587	585	601
Hydraulic .....	307	311	300	300
Fuel .....	252	276	285	301
Water .....	396	421	420	428
Municipal .....	163	166	165	173
<b>Capital</b>				
Total .....	\$ 1,229,938,951	1,138,200,016	1,055,731,532	956,919,603
Commercial .....	785,915,490	723,890,071	685,771,270	614,910,399
Municipal .....	444,073,471	414,309,945	369,960,262	342,009,204
Generating .....	\$ 1,092,292,089	995,701,285	926,103,973	835,422,031
Non-generating .....	\$ 137,696,862	142,498,731	129,627,559	121,497,572
<b>Revenue (1)</b>				
Total .....	\$ 122,310,730	126,038,145	122,883,446	112,326,819
Commercial .....	72,103,930	73,261,572	70,874,794	64,575,700
Municipal .....	50,206,800	52,776,573	52,008,652	47,751,119
Generating .....	\$ 101,475,523	104,632,540	102,704,833	92,722,293
Non-generating .....	\$ 20,835,207	21,405,605	20,178,613	19,604,526
<b>Expenses (2)</b>				
Total .....	\$ 75,235,767	74,209,469	67,432,418	62,330,860
Commercial .....	32,418,131	33,712,063	31,888,591	30,961,337
Municipal .....	42,817,636	40,497,406	35,543,827	31,369,523
Generating .....	\$ 41,336,873	40,646,659	36,713,723	33,837,618
Non-generating .....	\$ 33,898,894	33,562,310	30,718,695	28,493,242
<b>Pole Line Mileage-</b>				
Total .....	52,399	48,914	42,913	37,333
Commercial .....	24,299	23,614	22,356	18,375
Municipal .....	28,100	25,200	20,557	18,458
Generating .....	39,709	35,707	30,718	25,524
Non-generating .....	12,690	13,107	12,195	11,809
<b>Supplies-</b>				
Total .....	1,632,792	1,607,766	1,555,383	1,464,005
Domestic Service .....	1,336,721	1,317,324	(3) 1,292,431	1,207,457
Commercial Light .....	244,634	238,847	(4) 233,854	215,728
Power (small) .....	25,913	24,836	28,071	40,820
Power (large) .....	23,583	25,150	1,547	-
Street lighting .....	1,941	(5) 1,724	...	...
Commercial Stations .....	758,285	745,608	733,698	677,223
Municipal Stations .....	874,507	862,158	822,185	786,782
Generating Stations .....	835,460	814,268	796,298	728,872
Non-generating Stations .....	797,332	793,498	759,585	735,133
<b>Electric Energy Generated-</b>				
Total Kilowatt Hours(thousands)	16,330,867	18,093,802	17,962,515	16,337,804
Commercial .....	12,191,139	12,937,014	12,774,107	11,460,974
Municipal .....	4,139,707	5,156,788	5,188,408	4,876,830
<b>Exports of Electricity to the</b>				
United States (thousands) Kw.H.	1,227,036	1,612,281	1,444,524	1,587,761
<b>Imports of Electricity from the</b>				
United States (thousands) Kw.H.	5,446	5,757	6,133	5,223
<b>Equipment in Generating Stations (Main Plant Only)-</b>				
Total Primary Power .....	H.P. 5,706,757	5,401,108	4,925,555	4,627,667
Total in Commercial Stns. ....	H.P. 4,046,810	3,794,819	3,523,625	3,268,350
Total in Municipal Stns. ....	H.P. 1,659,947	1,606,289	1,401,930	1,359,317
Total Secondary Power ....	K.V.A. 4,727,376	4,474,865	4,048,019	3,764,331
Total in Commercial Stns. ....	K.V.A. 3,388,926	3,181,428	2,940,210	2,690,097
Total in Municipal Stns. ....	K.V.A. 1,338,450	1,293,437	1,107,809	1,074,234
<b>Auxiliary Plant Equipment-</b>				
Primary Power .....	H.P. 184,043	171,453	171,888	159,233
Secondary Power .....	K.V.A. 157,221	145,678	146,251	135,440

(1) Duplicates excluded.

(2) Includes wages, cost of power and fuel for 1931 - 1923 and for 1931-1925 taxes, but not other expenses.

Table 1 - Comparative Summary, 1931 - 1923

	1927	1926	1925	1924	1923	Per cent Increase 1931 over 1923
	629	595	563	532	532	5.1
	302	294	284	273	269	14.1
	327	301	279	259	263	- 4.2
	432	393	365	333	335	18.2
	197	202	198	199	197	- 17.3
	866,825,285	756,220,066	726,721,087	628,565,093	581,780,611	111.4
	528,070,964	430,817,426	409,862,801	326,554,580	307,046,240	156.0
	338,754,321	325,402,640	316,858,286	302,010,513	274,734,371	61.6
	750,703,270	647,850,154	625,970,883	532,016,164	489,085,939	123.3
	116,122,015	108,369,912	100,750,204	96,548,929	92,694,672	48.5
	104,033,297	88,933,733	79,341,584	74,616,863	67,496,893	82.3
	59,320,175	47,911,555	42,195,543	39,033,665	37,040,835	94.7
	44,713,122	41,022,178	37,146,041	35,583,193	30,456,058	67.2
	86,369,058	72,123,290	63,547,553	59,861,915	52,681,003	92.6
	17,664,239	16,810,443	15,794,031	14,754,948	14,815,890	45.5
	60,169,781	52,766,799	47,635,531	40,887,779	41,067,329	...
	28,704,496	24,622,619	21,325,649	16,777,557	15,319,394	...
	31,465,285	28,144,180	26,309,882	24,110,222	25,747,935	...
	31,920,941	27,655,269	24,857,279	20,198,257	20,992,105	...
	28,248,840	25,111,530	22,778,252	20,689,522	20,075,224	...
	33,573	29,695	27,653	26,654	23,560	122.4
	16,747	14,257	13,047	12,102	11,146	118.0
	16,826	15,438	14,606	14,552	12,414	126.4
	23,246	20,005	18,372	17,340	14,405	175.7
	10,327	9,690	9,281	9,314	9,155	38.6
	1,381,968	1,337,562	1,279,731	1,200,950	1,112,547	46.7
	1,142,512	1,110,637	1,063,530	989,510	920,223	...
	199,431	188,553	180,994	176,444	159,929	...
	( 40,025	( 38,372	( 35,207	( 34,996	( 32,395	...
	( -	( -	( -	( -	( -	...
	...	...	...	...	...	...
	622,823	584,760	559,172	521,064	496,591	52.7
	759,145	752,802	720,559	679,886	615,956	42.0
	699,874	680,717	653,032	610,206	547,928	52.5
	682,094	656,845	626,699	590,744	564,619	41.2
	14,549,099	12,093,445	10,110,459	9,315,277	8,099,192	101.6
	9,944,422	7,797,480	6,527,103	6,024,312	5,074,120	140.3
	4,604,677	4,295,965	3,583,356	3,290,965	3,025,072	36.8
	1,632,614	1,506,002	1,285,540	1,302,317	1,343,501	- 8.7
	5,020	5,354	...	...	...	...
	4,173,349	3,769,323	3,569,527	2,849,450	2,423,845	135.4
	2,797,055	2,423,244	2,243,318	1,701,793	1,451,498	178.8
	1,376,294	1,346,079	1,326,209	1,147,657	972,347	70.7
	3,385,227	2,995,387	2,844,709	2,282,046	1,861,845	153.9
	2,297,005	1,938,048	1,803,545	1,401,471	1,140,945	197.0
	1,088,222	1,057,339	1,041,164	880,575	720,900	85.7
	145,047	176,865	173,170	168,102	149,572	23.0
	121,863	145,828	142,421	136,755	121,832	29.0

(3) Farm service is included with domestic service.

(4) Includes small power customers in 1929.

(5) Revised.



Table 2 - Electric Power Plants, 1931

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	
<u>Total Number of Generating Stations</u> .....	559	11	48	19	
Per cent of total for Canada.	100.00	1.97	8.59	3.40	
<u>Commercial</u> .....	396	9	24	15	
Hydraulic .....	208	8	13	4	
Fuel .....	188	1	11	11	
<u>Municipal</u> .....	163	2	24	4	
Hydraulic .....	99	..	19	3	
Fuel .....	64	2	5	1	
With water wheels and turbines	307	8	32	7	
With steam engines only .....	39	..	2	6	
With steam turbines only .....	17	1	6	1	
With gas or oil engines only..	184	2	7	4	
With both steam engines and turbines .....	10	..	1	1	
With both steam and gas or oil engines .....	2	..	..	..	
With alternating current dynamoes only .....	422	10	45	13	
With direct current dynamoes only .....	132	1	3	5	
With both alternating and direct current dynamoes ....	5	..	..	1	
<u>Commercial Organizations</u> .....	x 350	8	28	24	
Number generating power .....	274	7	14	13	
Number buying power for redistribution .....	75	1	14	11	
<u>Municipalities</u> .....	x 460	2	30	14	
Number generating power .....	82	2	13	4	
Number buying power for redistribution .....	377	..	17	10	
<u>Auxiliary Plants</u> .....	61	2	6	5	
To Hydraulic Stations .....	46	2	3	1	
To Non-generating Stations ....	15	..	3	4	

x - Organizations operating in two or more provinces are not shown under provinces,  
but are included in total.

Table 2 - Electric Power Plants, 1931

	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
	96	125	28	119	56	57
	17.17	22.36	5.01	21.29	10.02	10.19
	83	63	13	93	47	49
	81	60	3	..	5	34
	2	3	10	93	42	15
	13	62	15	26	9	8
	12	58	2	..	1	4
	1	4	13	26	8	4
	93	118	5	..	6	38
	..	5	4	1	14	7
	1	..	..	4	2	2
	1	2	16	111	31	10
	1	..	2	3	2	..
	..	..	1	..	1	..
	94	120	21	43	29	47
	1	5	6	76	26	9
	1	..	1	..	1	1
	62	52	14	73	46	42
	43	43	10	71	40	33
	19	9	4	2	6	9
	26	319	17	20	15	16
	9	19	10	13	6	6
	17	300	7	7	9	10
	8	11	3	..	10	16
	8	8	3	..	8	13
	..	3	..	..	2	3

Table 3 - Capital, 1931

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	
	\$	\$	\$	\$	
<u>Total Capital</u> .....	1,229,988,951	1,095,885	28,328,512	30,588,422	
Per cent of total for Canada	100.00	0.09	2.30	2.49	
<u>Generation</u> .....	736,155,128	601,117	17,642,126	21,706,709	
<u>Transmission</u> .....	201,213,899	...	3,739,405	3,568,565	
<u>Distribution</u> .....	212,737,118	389,287	5,082,170	3,754,859	
<u>General</u> .....	79,882,806	105,481	1,864,811	1,558,289	
<u>Total Capital in Commercial Stations</u> .....	785,915,480	945,862	12,617,477	22,309,985	
<u>Generation</u> .....	534,713,529	508,677	4,892,137	17,652,561	
<u>Transmission</u> .....	103,275,514	...	2,401,279	1,851,725	
<u>Distribution</u> .....	90,759,360	349,609	3,861,383	1,610,253	
<u>General</u> .....	55,167,077	87,576	1,462,678	1,195,446	
<u>Non-generating stations</u> .....	33,846,511	6,000	2,041,417	1,443,062	
<u>Generating stations</u> .....	752,068,969	939,862	10,576,060	20,866,923	
Hydraulic stations .....	726,079,697	143,205	3,470,369	16,820,247	
Fuel stations .....	25,989,272	796,657	7,105,691	4,046,676	
<u>Total Capital in Municipal Stations</u> .....	444,073,471	150,023	15,711,035	8,278,437	
<u>Generation</u> .....	201,441,599	92,440	12,749,989	4,054,148	
<u>Transmission</u> .....	95,938,385	...	1,338,126	1,716,840	
<u>Distribution</u> .....	121,977,758	39,678	1,220,787	2,144,606	
<u>General</u> .....	24,715,729	17,905	402,133	362,843	
<u>Non-generating stations</u> .....	103,850,351	...	1,143,361	1,482,844	
<u>Generating stations</u> .....	340,223,120	150,023	14,567,674	6,795,593	
Hydraulic stations .....	320,447,716	...	14,094,363	6,689,815	
Fuel stations .....	19,775,404	150,023	473,311	105,778	
<u>Total Capital in Non-generating Stations</u> .....	137,696,862	6,000	3,184,778	2,925,906	
<u>Generation</u> .....	723,925	...	155,936	314,598	
<u>Transmission</u> .....	7,074,415	...	310,640	243,623	
<u>Distribution</u> .....	112,324,687	6,000	2,293,297	1,824,327	
<u>General</u> .....	17,573,835	...	424,905	543,358	
<u>Total Capital in Generating Stations</u> .....	1,092,292,089	1,089,885	25,143,734	27,662,516	
<u>Generation</u> .....	735,431,203	601,117	17,486,190	21,392,111	
<u>Transmission</u> .....	194,139,484	...	3,428,765	3,324,942	
<u>Distribution</u> .....	100,412,431	383,287	2,788,873	1,930,532	
<u>General</u> .....	62,308,971	105,481	1,439,906	1,014,931	
<u>Hydraulic Stations</u> .....	1,046,527,413	143,205	17,564,732	23,510,062	
<u>Fuel Stations</u> .....	45,764,676	946,680	7,579,002	4,152,454	
<u>TOTAL CAPITAL</u>					
Average per H.P. of primary power	216	198	224	241	
Av. per H.P. including auxiliary equip.	209	195	218	223	
Av. per K.V.A. of dynamo capacity	260	222	277	285	
Av. per K.V.A. including auxiliary equip.	252	222	271	265	
<u>Generation</u>					
Average cost per H.P. (including auxiliary equipment)-					
In all generating stations...	125	107	135	156	
In hydraulic stations .....	127	138	177	164	
In fuel stations .....	84	103	70	129	



Table 3 - Capital, 1931

	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon
	\$	\$	\$	\$	\$	\$
	495,841,547 40.31	463,410,859 37.68	x 66,235,343 5.38	x 25,401,277 2.07	27,556,419 2.24	91,530,687 7.44
	350,000,238	236,559,266	34,592,266	12,347,726	13,138,172	49,567,508
	64,514,879	98,149,219	9,872,537	3,865,783	6,546,376	10,957,135
	45,546,792	103,652,482	17,066,006	7,462,318	6,904,457	22,878,741
	35,779,632	25,049,892	4,704,534	1,725,450	967,414	8,127,303
	488,348,629	106,418,196	32,298,191	12,291,630	21,250,634	89,434,876
	345,871,862	78,662,679	21,451,262	6,129,732	10,753,343	48,791,276
	64,189,591	13,404,831	4,321,586	1,822,134	6,402,940	10,881,428
	42,839,093	8,340,999	5,288,288	3,380,732	3,377,081	21,711,922
	35,448,083	6,009,687	1,237,055	959,032	717,270	8,050,250
	3,172,714	2,810,489	873,309	1,710,154	82,263	21,707,103
	485,175,915	103,607,707	31,424,882	10,581,476	21,168,371	67,727,773
	485,112,788	103,580,073	31,019,949	...	18,601,817	67,331,249
	63,127	27,634	404,933	10,581,476	2,566,554	396,524
	7,492,918	356,992,663	33,937,152	13,109,647	6,305,785	2,095,811
	4,128,376	157,896,587	13,141,004	6,217,994	2,384,829	776,232
	325,288	84,744,388	5,550,951	2,043,649	143,436	75,707
	2,707,705	95,311,483	11,777,718	4,081,586	3,527,376	1,166,819
	331,549	19,040,205	3,467,479	766,418	250,144	77,053
	814,587	92,188,811	3,376,608	1,828,388	2,048,925	966,827
	6,678,331	264,803,852	30,560,544	11,281,259	4,256,860	1,128,984
	5,227,861	264,644,594	28,533,224	...	237,481	1,020,378
	1,450,470	159,258	2,027,320	11,281,259	4,019,379	108,606
	3,987,301	94,999,300	4,249,917	3,538,542	2,131,188	22,673,930
	...	102,396	...	...	67,912	83,083
	1,290,730	1,058,771	1,915,466	787,721	81,303	1,386,161
	2,474,099	82,590,588	1,960,405	2,479,396	1,946,656	16,749,919
	222,472	11,247,545	374,046	271,425	35,317	4,454,767
	491,854,246	368,411,559	61,985,426	21,862,735	25,425,231	68,856,757
	350,000,238	236,456,870	34,592,266	12,347,726	13,070,260	49,484,425
	63,224,149	97,090,448	7,957,071	3,078,062	6,465,073	9,570,974
	43,072,699	21,061,894	15,105,601	4,982,922	4,957,801	6,128,822
	35,557,160	13,802,347	4,330,488	1,454,025	932,097	3,672,536
	490,340,649	368,224,667	59,553,173	...	18,839,298	68,351,627
	1,513,597	186,892	2,432,253	21,862,735	6,585,933	505,130
	197	261	171	188	215	181
	195	255	160	188	183	165
	230	322	216	221	263	235
	227	315	200	221	222	212
	137	130	84	91	87	89
	137	130	83	..	111	89
	117	129	121	91	51	87

x - Capital invested in one hydraulic station in Saskatchewan included under "Manitoba."

Table 4 - Revenue, 1931

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	
	\$	\$	\$	\$	
<u>REVENUES</u>					
Revenue from sale of electric energy	122,310,730	270,445	3,954,158	2,931,097	
Per cent of total for Canada .....	100.00	0.22	3.23	2.40	
For domestic service .....	35,259,391	120,606	1,151,609	901,325	
For commercial light .....	20,655,553	74,795	749,296	480,725	
For power (small) .....	5,239,846	33,023	417,098	199,164	
For power (large) .....	56,381,609	23,028	1,443,288	1,241,827	
For street lighting .....	4,774,331	18,993	192,867	108,056	
<u>Revenue of Commercial Stations</u> .....	72,103,930	217,323	2,337,942	2,107,581	
Non-generating .....	5,221,503	537	517,495	272,654	
Generating .....	66,882,427	216,786	1,820,447	1,834,927	
Hydraulic .....	62,313,908	33,928	406,788	1,194,601	
Fuel .....	4,568,519	182,858	1,413,659	640,326	
<u>Revenue of Municipal Stations</u> .....	50,206,800	53,122	1,616,216	823,516	
Non-generating .....	15,613,704	...	298,698	308,910	
Generating .....	34,593,096	53,122	1,317,518	514,606	
Hydraulic .....	29,828,159	...	1,148,070	481,957	
Fuel .....	4,764,937	53,122	169,448	32,649	
Revenue of non-generating stations....	20,835,207	537	816,193	581,564	
Revenue of generating stations .....	101,475,523	269,908	3,137,965	2,349,533	
Revenue of hydraulic stations .....	92,142,067	33,928	1,554,858	1,676,558	
Revenue of fuel stations .....	9,333,456	235,980	1,583,107	672,975	
Average net revenue per H.P. of primary power .....	21.43	48.93	31.30	23.12	
Average net revenue per H.P. in main and auxiliary plants .....	20.76	48.02	30.47	21.37	
Average net revenue per K.V.A. of dynamo capacity .....	25.87	54.87	38.73	27.27	
Average net revenue per K.V.A. in main and auxiliary plants .....	25.04	54.87	37.78	25.39	
Average net revenue per kilowatt hour of all stations (cents) .....	0.75	6.13	1.54	0.72	
Average net revenue per domestic service customer .....	26.38	30.30	25.45	26.54	
Average net revenue per commercial light customer .....	84.43	81.12	86.25	84.78	
Average net revenue per small power customer .....	202.22	201.36	251.72	188.96	
Average net revenue per large power customer .....	2,390.77	794.07	14,012.50	9,934.62	
Average net revenue per kilowatt hour- domestic and farm services (cents)	2.25	8.98	6.02	5.10	
Average net revenue per kilowatt hour- commercial light .....(cents)	2.71	8.32	5.80	4.01	

Table 4 - Revenue, 1931

	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
	\$	\$	\$	\$	\$	\$
	42,010,665	46,542,982	6,778,905	4,454,617	4,674,857	10,693,004
	34.35	38.06	5.54	3.64	3.82	8.74
	8,100,380	15,448,069	2,679,138	1,809,029	1,721,292	3,327,943
	5,545,055	7,644,978	1,437,935	1,229,175	1,174,132	2,319,462
	2,428,744	517,039	307,511	624,862	505,785	206,620
	24,710,558	20,964,502	2,120,859	493,764	993,306	4,390,477
	1,225,928	1,968,394	223,462	297,787	280,342	448,502
	40,779,377	9,200,055	3,319,105	1,691,229	2,364,815	10,086,503
	326,131	166,484	126,235	144,984	33,594	3,633,389
	40,453,246	9,033,571	3,192,870	1,546,245	2,331,221	6,453,114
	40,436,165	9,026,157	3,127,466	...	1,765,080	6,323,723
	17,081	7,414	65,404	1,546,245	566,141	129,391
	1,231,288	37,342,927	3,459,800	2,763,388	2,310,042	606,501
	253,673	12,688,015	348,988	508,657	873,085	333,678
	977,615	24,654,912	3,110,812	2,254,731	1,436,957	272,823
	722,364	24,605,552	2,637,154	...	31,003	202,059
	255,251	49,360	473,658	2,254,731	1,405,954	70,764
	579,804	12,854,499	475,223	653,641	906,679	3,967,067
	41,430,861	33,688,483	6,303,682	3,800,976	3,768,178	6,725,937
	41,158,529	33,631,709	5,764,620	...	1,796,083	6,525,782
	272,332	56,774	539,062	3,800,976	1,972,095	200,155
	16.68	26.22	17.54	32.99	36.42	21.18
	16.48	25.64	16.40	32.99	31.04	19.26
	19.45	32.39	22.12	38.81	44.66	27.40
	19.22	31.65	20.45	38.81	37.70	24.73
	0.52	0.95	0.62	3.32	2.28	0.87
	21.56	26.65	37.56	41.04	30.26	26.47
	79.05	85.16	89.56	80.23	73.81	104.74
	242.44	198.40	116.57	234.12	140.38	137.38
	10,291.78	1,372.11	937.60	6,250.18	2,684.61	1,495.90
	3.62	1.78	1.04	5.09	5.70	3.01
	3.35	2.02	1.89	6.38	5.14	3.08



Table 5 - Expenses, 1931

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	
	\$	\$	\$	\$	
<u>Total Expenses</u> .....	75,235,767	108,261	2,352,692	1,537,239	
Per cent of total for Canada .....	100.00	0.14	3.13	2.04	
Salaries and wages .....	26,306,956	59,019	1,002,111	534,167	
Fuel .....	1,892,252	41,686	223,723	171,398	
Taxes .....	6,025,724	7,020	224,697	67,805	
Cost of power .....	41,010,835	536	902,161	763,869	
<u>Total for Commercial Stations</u> .....	32,418,131	90,698	1,701,282	844,186	
Salaries and wages .....	12,097,120	50,792	659,301	316,825	
Fuel .....	905,627	32,350	195,380	154,733	
Taxes .....	5,369,583	7,020	222,220	67,298	
Cost of power .....	14,045,801	536	624,381	305,330	
Non-generating stations .....	5,685,902	536	507,480	385,552	
Generating stations .....	26,732,229	90,162	1,193,802	458,634	
Hydraulic stations .....	24,070,211	8,926	153,444	89,278	
Fuel stations .....	2,662,018	81,236	1,040,358	369,356	
<u>Total for Municipal Stations</u> .....	42,817,636	17,563	551,410	693,053	
Salaries and wages .....	14,209,836	8,227	342,810	217,342	
Fuel .....	986,625	9,336	28,343	16,665	
Taxes .....	656,141	...	2,477	507	
Cost of power .....	26,965,034	...	277,780	458,539	
Non-generating stations .....	28,212,992	...	370,021	404,949	
Generating stations .....	14,604,644	17,563	281,389	288,104	
Hydraulic stations .....	12,264,698	...	205,962	271,350	
Fuel stations .....	2,339,946	17,563	75,427	16,754	
<u>Total Expenses for Non-generating Stations</u> .....	33,898,894	536	877,501	790,501	
Salaries and wages .....	8,036,952	...	311,543	181,796	
Fuel .....	1,726	...	608	1,118	
Taxes .....	594,341	...	27,348	27,707	
Cost of power .....	25,265,875	536	538,002	579,880	
<u>Total Expenses for Generating Stations</u> .....	41,336,873	107,725	1,475,191	746,738	
Salaries and wages .....	18,270,004	59,019	690,568	352,371	
Fuel .....	1,890,526	41,686	223,115	170,280	
Taxes .....	5,431,383	7,020	197,349	40,098	
Cost of power .....	15,744,960	...	364,159	183,989	
Hydraulic stations .....	36,334,909	8,926	359,406	360,628	
Fuel stations .....	5,001,964	98,799	1,115,785	386,110	

Table 5 - Expenses, 1931

	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
	\$	\$	\$	\$	\$	\$
	15,215,425 20.22	40,737,319 54.15	3,552,644 4.72	2,876,019 3.82	2,359,702 3.14	6,496,466 8.64
	6,162,591 34,573	12,285,699 127,036	2,001,487 97,995	1,005,370 905,594	1,083,851 201,895	2,172,661 88,352
	3,048,726 5,969,535	1,369,490 26,955,094	227,893 1,225,269	129,350 835,705	177,794 896,162	772,949 3,462,504
	14,668,934	5,715,406	1,587,979	875,591	820,120	6,113,935
	5,898,635 9,454	1,671,325 29,381	579,230 16,022	365,030 322,796	521,943 74,801	2,034,039 70,710
	3,038,002 5,722,843	952,892 3,061,808	130,493 862,234	81,640 106,125	97,069 126,307	772,949 3,236,237
	249,525 14,419,409 14,413,215 6,194	1,265,336 4,450,070 4,446,806 3,264	206,777 1,381,202 1,340,642 40,560	100,701 774,890 ... 774,890	33,063 787,057 506,117 280,940	2,936,932 3,177,003 3,111,783 65,220
	546,491	35,021,913	1,964,665	2,000,428	1,539,582	382,531
	263,956 25,119	10,614,374 97,655	1,422,257 81,973	640,340 582,793	561,908 127,094	138,622 17,642
	10,724 246,692	416,598 23,893,236	97,400 363,035	47,710 729,580	80,725 769,855	... 226,267
	193,589 352,902 137,476 215,426	24,823,352 10,198,561 10,173,761 24,800	351,821 1,612,844 1,407,349 205,495	857,056 1,143,372 ... 1,143,372	924,123 615,459 9,625 605,834	288,081 94,450 59,175 35,275
	443,114 138,820 ... 3,662 300,632	26,088,688 5,754,851 ... 134,918 20,198,919	558,598 230,866 ... 13,163 314,569	957,757 135,947 ... 50,969 770,841	957,186 238,403 ... 62,784 655,999	3,225,013 1,044,726 ... 273,790 1,906,497
	14,772,311	14,648,631	2,994,046	1,918,262	1,402,516	3,271,453
	6,023,771 34,573	6,530,848 127,036	1,770,621 97,995	869,423 905,594	845,448 201,895	1,127,935 88,352
	3,045,064 5,668,903	1,234,572 6,756,175	214,730 910,700	78,381 64,864	115,010 240,163	499,159 1,556,007
	14,550,691 221,620	14,620,567 28,064	2,747,991 246,055	... 1,918,262	515,742 886,774	3,170,958 100,495

Table 6 - Employees, 1931

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	
<u>Total Number of persons employed</u> .....	17,014	54	786	432	
Per cent of total for Canada .....	100.00	0.32	4.62	2.54	
Officers, clerks, other salaried employees, etc. ....	7,018	22	294	207	
Employees on wages .....	9,996	32	492	225	
<u>Total Employees in Commercial Stations</u>	8,236	47	512	258	
Officers, clerks, other salaried employees, etc. ....	3,206	19	203	105	
Employees on wages .....	5,030	28	309	153	
Non-generating .....	977	..	160	78	
Generating .....	7,259	47	352	180	
Hydraulic .....	6,401	9	113	50	
Fuel .....	858	38	239	130	
<u>Total Employees in Municipal Stations</u>	8,778	7	274	174	
Officers, clerks, other salaried employees, etc. ....	3,812	3	91	102	
Employees on wages .....	4,966	4	183	72	
Non-generating .....	4,434	..	92	78	
Generating .....	4,344	7	182	96	
Hydraulic .....	3,594	..	152	91	
Fuel .....	750	7	30	5	
<u>Total Employees in Non-generating Stations</u> .....	5,411	..	252	156	
Officers, clerks, other salaried employees, etc. ....	2,557	..	111	85	
Employees on wages .....	2,854	..	141	71	
<u>Total Employees in Generating Stations</u>	11,603	54	534	276	
Officers, clerks, other salaried employees, etc. ....	4,461	22	183	122	
Employees on wages .....	7,142	32	351	154	
Hydraulic .....	9,995	9	265	141	
Fuel .....	1,608	45	269	135	



Table 6 - Employees, 1931

	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
	4,132	7,491	1,244	725	813	1,337
	24.28	44.03	7.31	4.26	4.73	7.86
	1,522	3,193	496	353	312	619
	2,610	4,298	748	372	501	718
	3,937	1,142	358	305	454	1,223
	1,443	386	150	193	154	553
	2,494	756	208	112	300	670
	93	44	8	16	7	571
	3,844	1,098	350	289	447	652
	3,841	1,095	326	..	346	621
	3	3	24	289	101	31
	195	6,349	886	420	359	114
	79	2,807	346	160	158	66
	116	3,542	540	260	201	48
	37	3,795	152	68	155	57
	158	2,554	734	352	204	57
	95	2,544	655	..	13	44
	63	10	79	352	191	13
	130	3,839	160	84	162	628
	62	1,782	26	43	86	362
	68	2,057	134	41	76	266
	4,002	3,652	1,084	641	651	709
	1,460	1,411	470	310	226	257
	2,542	2,241	614	331	425	452
	3,936	3,639	981	..	359	665
	66	13	103	641	292	44

Table 7 - Number of Customers, 1931

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Number of Customers</u> .....	1,632,792	5,102	55,795	40,852
<u>Per cent of total for Canada</u> .....	100.00	0.31	3.42	2.50
<u>Domestic service</u> .....	1,336,721	3,980	45,252	33,964
<u>Commercial light</u> .....	244,674	922	8,687	5,670
<u>Power (small)</u> .....	25,9	164	1,657	1,054
<u>Power (large)</u> .....	23,583	29	103	125
<u>Street lighting</u> .....	1,941	7	86	39
<u>Total Number of Customers of Commercial Stations</u> .....	758,295	4,112	37,888	20,967
<u>Domestic service</u> .....	607,977	3,210	30,616	16,642
<u>Commercial light</u> .....	125,178	755	6,130	3,594
<u>Power (small)</u> .....	15,913	114	1,025	659
<u>Power (large)</u> .....	8,034	28	62	51
<u>Street lighting</u> .....	1,183	5	55	21
<u>Non-generating</u> .....	147,613	46	17,174	10,350
<u>Generating</u> .....	610,672	4,066	20,714	10,617
<u>hydraulic</u> .....	547,708	1,028	4,718	286
<u>Fuel</u> .....	62,964	3,038	15,996	10,331
<u>Total Number of Customers of Municipal Stations</u> .....	874,507	990	17,897	19,385
<u>Domestic service</u> .....	728,744	770	14,636	17,322
<u>Commercial light</u> .....	119,456	167	2,557	2,076
<u>Power (small)</u> .....	10,000	50	632	395
<u>Power (large)</u> .....	15,549	1	41	74
<u>Street lighting</u> .....	758	2	31	18
<u>Non-generating</u> .....	649,719	...	12,448	13,506
<u>Generating</u> .....	224,738	990	5,449	6,379
<u>hydraulic</u> .....	153,940	...	2,205	5,742
<u>Fuel</u> .....	70,848	990	3,244	637
<u>Total Number of Customers of Non-generating Stations</u> .....	797,332	46	29,622	23,956
<u>Domestic service</u> .....	663,198	40	24,589	19,894
<u>Commercial light</u> .....	112,395	6	4,328	3,360
<u>Power (small)</u> .....	5,041	...	637	510
<u>Power (large)</u> .....	16,121	...	29	69
<u>Street lighting</u> .....	577	...	39	23
<u>Total Number of Customers of Generating Stations</u> .....	835,460	5,056	26,163	16,996
<u>Hydraulic stations</u> .....	701,548	1,028	6,923	6,028
<u>Domestic service</u> .....	575,313	825	5,580	5,538
<u>Commercial light</u> .....	102,935	158	1,052	309
<u>Power (small)</u> .....	15,307	41	611	145
<u>Power (large)</u> .....	7,086	...	46	30
<u>Street lighting</u> .....	1,007	4	34	8
<u>Fuel stations</u> .....	133,812	4,028	19,240	10,968
<u>Domestic service</u> .....	98,210	3,115	15,083	8,532
<u>Commercial light</u> .....	29,304	758	3,307	2,001
<u>Power (small)</u> .....	5,565	123	809	401
<u>Power (large)</u> .....	376	29	28	26
<u>Street lighting</u> .....	357	3	13	8
<u>Average number of domestic service customers per 100 of population</u> .....	12.89	4.52	8.82	8.32

(x) Large power customers for Ontario include both large and small customers of municipalities

Table 7 - Number of Customers, 1931

	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
	459,014 28.11	687,906 42.13	92,359 5.66	62,426 3.33	76,944 4.71	152,404 9.33
	375,764 70,149	579,721 89,777	71,324 16,055	44,078 15,321	56,890 15,907	125,748 22,146
	10,018 2,401 682	2,606 (x) 15,279 523	2,638 2,262 80	2,669 79 279	3,603 370 174	1,504 2,935 71
	427,879 349,001 66,640	57,626 46,104 8,812	27,055 19,477 6,311	23,458 16,040 6,386	24,949 15,753 7,295	134,351 111,134 19,255
	9,275 2,311 652	1,000 1,647 63	387 858 22	850 29 153	1,611 133 157	992 2,915 55
	11,266 416,613 416,254 359	2,355 55,271 55,060 211	5,279 21,776 20,722 1,054	2,886 20,572 ... 20,572	1,190 23,759 14,480 9,279	97,067 37,284 35,160 2,124
	31,135 26,763 3,509	630,280 533,617 80,965	65,304 51,847 9,744	38,968 28,038 8,935	51,995 41,137 8,612	18,053 14,614 2,891
	743 90 30	1,606 (x) 13,632 460	2,251 1,404 58	1,819 50 126	1,992 237 17	512 20 16
	11,783 19,352 14,959 4,393	552,538 77,742 76,968 774	7,040 58,264 49,605 8,659	14,563 24,405 ... 24,405	24,704 27,291 731 26,560	13,137 4,916 3,730 1,186
	23,049 19,754 2,688	554,893 462,861 77,854	12,319 9,705 2,041	17,449 12,885 3,618	25,894 21,560 3,410	110,204 91,910 15,090
	510 25 72	732 (x) 13,142 304	499 35 39	856 34 56	866 47 11	431 2,740 33
	435,965 431,213 351,799	133,013 132,028 116,010	80,040 70,327 54,768	44,977 ... ...	51,050 15,211 9,482	42,200 38,890 31,311
	67,128 9,311 2,368 607	11,801 1,866 2,135 216	11,641 1,684 2,222 12	... ... ... ...	4,438 1,098 96 97	6,408 953 189 29
	4,752 4,211 333	985 850 122	9,713 6,851 2,373	44,977 31,193 11,703	35,839 25,848 8,059	3,310 2,527 648
	197 8 3	8 2 3	455 5 29	1,813 45 223	1,639 227 66	120 6 9
	13.07	16.39	10.19	4.78	7.77	18.02

served by the Provincial Commission.



Table 8 - Pole Line Mileage, 1931

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	
Pole Line Mileage .....	52,399	167	2,119	1,639	
Per cent of total for Canada .....	100.00	0.32	4.04	3.13	
For transmission .....	20,225	...	491	472	
For distribution .....	32,174	167	1,628	1,167	
<u>Total Pole Line Mileage -</u>					
<u>Commercial Stations</u> .....	24,299	149	1,313	624	
Non-generating .....	4,098	7	530	215	
Generating .....	20,201	142	783	409	
Hydraulic .....	17,806	77	483	153	
Fuel .....	2,395	65	300	256	
<u>Total Pole Line Mileage -</u>					
<u>Municipal Stations</u> .....	28,100	18	806	1,015	
Non-generating .....	8,592	...	325	227	
Generating .....	19,508	18	481	788	
Hydraulic .....	17,057	...	425	768	
Fuel .....	2,451	18	56	20	
<u>Total Pole Line Mileage -</u>					
<u>Non-generating Stations</u> .....	12,690	7	855	442	
<u>Total Pole Line Mileage -</u>					
<u>Generating Stations</u> .....	39,709	160	1,264	1,197	
Hydraulic stations .....	34,863	77	908	921	
Fuel stations .....	4,846	83	356	276	

Table 9 - Auxiliary Plant Equipment, 1931

<u>Total Primary Power</u> .....	H.P.	184,043	105	3,413	10,425	
Per cent of total for Canada .....		100.00	0.06	1.85	5.66	
Steam reciprocating engines .....	No.	47	1	9	7	
Total capacity .....	H.P.	16,048	75	2,398	1,850	
Steam turbines .....	No.	41	...	1	2	
Total capacity .....	H.P.	160,171	...	670	8,000	
Gas and oil engines .....	No.	39	1	2	3	
Total capacity .....	H.P.	7,824	30	345	575	
<u>Total Secondary Power</u> .....	K.V.A.	157,221	...	2,567	7,955	
<u>Commercial Stations</u>						
<u>Total Primary Power</u> .....	H.P.	124,495	105	2,810	1,525	
Steam reciprocating engines .....	No.	34	1	7	5	
Total capacity .....	H.P.	12,075	75	1,975	1,475	
Steam turbines .....	No.	31	...	1	...	
Total capacity .....	H.P.	107,081	...	670	...	
Gas and oil engines .....	No.	28	1	1	1	
Total capacity .....	H.P.	5,339	30	165	50	
<u>Total Secondary Power</u> .....	K.V.A.	107,011	...	2,091	1,108	
<u>Municipal Stations</u>						
<u>Total Primary Power</u> .....	H.P.	59,548	...	603	8,900	
Steam reciprocating engines .....	No.	13	...	2	2	
Total capacity .....	H.P.	3,973	...	423	375	
Steam turbines .....	No.	10	...	...	2	
Total capacity .....	H.P.	53,090	...	...	8,000	
Gas and oil engines .....	No.	11	...	1	2	
Total capacity .....	H.P.	2,485	...	180	525	
<u>Total Secondary Power</u> .....	K.V.A.	50,210	...	476	6,847	

Table 8 - Pole Line Mileage, 1931

	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
	10,945	22,908	3,167	3,334	3,729	4,391
	20.89	43.72	6.04	6.36	7.12	8.38
	4,677	7,120	1,689	2,266	2,227	1,283
	6,268	15,788	1,478	1,068	1,502	3,108
	10,509	2,225	1,095	1,503	2,986	3,895
	593	142	180	648	33	1,750
	9,916	2,083	915	855	2,953	2,145
	9,905	2,077	846	...	2,216	2,049
	11	6	69	855	737	96
	436	20,683	2,072	1,831	743	496
	149	5,916	1,074	179	357	365
	287	14,767	998	1,652	386	131
	261	14,742	734	...	16	111
	26	25	264	1,652	370	20
	742	6,058	1,254	827	390	2,115
	10,203	16,850	1,913	2,507	3,339	2,276
	10,166	16,819	1,580	...	2,232	2,160
	37	31	333	2,507	1,107	116

Table 9 - Auxiliary Plant Equipment, 1931

	30,273	40,371	26,980	...	22,280	50,196
	16.45	21.94	14.66	...	12.11	27.27
	6	8	...	...	13	3
	3,450	2,650	...	...	4,650	975
	6	6	6	...	5	15
	25,500	36,500	26,740	...	16,250	46,511
	4	6	2	...	7	14
	1,323	1,221	240	...	1,380	2,710
	26,384	33,762	25,163	...	19,330	42,060
	30,273	7,521	12,000	...	21,340	48,921
	6	2	...	...	12	1
	3,450	450	...	...	4,200	450
	6	2	3	...	5	14
	25,500	6,300	12,000	...	16,250	46,361
	4	4	...	...	4	13
	1,323	771	...	...	890	2,110
	26,384	6,609	11,250	...	18,552	41,017
	...	32,850	14,980	...	940	1,275
	...	6	...	...	1	2
	...	2,200	...	...	450	525
	...	4	3	...	...	1
	...	30,200	14,740	...	...	150
	...	2	2	...	3	1
	...	450	240	...	490	600
	...	27,153	13,913	...	778	1,043

Table 10 - Total Equipment including Auxiliary Plant Equipment

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Primary Power</u> .....H.P.	5,890,800	5,632	129,762	137,185
Per cent of total for Canada .....	100.00	0.09	2.20	2.33
<u>Water wheels and turbines</u> .....No.	790	9	52	16
Total capacity .....H.P.	5,422,319	464	80,007	105,485
Steam reciprocating engines .....No.	113	1	14	16
Total capacity .....H.P.	34,638	75	4,593	5,230
Steam turbines .....No.	107	3	14	9
Total capacity .....H.P.	399,090	4,173	43,978	25,300
Gas and oil engines .....No.	356	6	17	9
Total capacity .....H.P.	34,753	920	1,184	1,170
<u>Total Dynamo Capacity</u> .....K.V.A.	4,884,597	4,929	104,668	115,432
Per cent of total for Canada .....	100.00	0.10	2.14	2.36
Dynamos, A.C. ....No.	1,143	15	90	42
Total capacity .....K.V.A.	4,877,309	4,921	104,278	114,210
Dynamos, D.C. ....No.	201	1	6	5
Total capacity ..... K.W.	7,288	8	390	1,222
<u>Commercial Stations</u>				
<u>Total Primary Power</u> .....H.P.	4,171,305	4,742	61,001	115,050
Water wheels and turbines .....No.	540	9	19	10
Total capacity .....H.P.	3,916,720	464	15,142	92,650
Steam engines .....No.	74	1	12	14
Total capacity .....H.P.	20,819	75	4,170	4,855
Steam turbines .....No.	65	3	11	7
Total capacity .....H.P.	213,249	4,173	41,320	17,300
Gas and oil engines .....No.	262	1	7	5
Total capacity .....H.P.	20,517	30	369	245
<u>Total Dynamo Capacity</u> .....K.V.A.	3,495,937	4,164	47,795	97,982
Dynamos, A.C. ....No.	745	10	42	28
Total capacity .....K.V.A.	3,490,683	4,156	47,405	96,760
Dynamos, D.C. ....No.	180	1	6	9
Total capacity ..... K.W.	5,254	8	390	1,222
<u>Municipal Stations</u>				
<u>Total Primary Power</u> .....H.P.	1,719,495	890	68,761	22,135
Water wheels and turbines .....No.	250	...	33	6
Total capacity .....H.P.	1,505,599	...	64,865	12,835
Steam engines.....No.	39	...	2	2
Total capacity .....H.P.	13,819	...	423	375
Steam turbines .....No.	42	...	3	2
Total capacity .....H.P.	185,841	...	2,658	8,000
Gas and oil engines .....No.	94	5	10	4
Total capacity.....H.P.	14,236	890	815	925
<u>Total Dynamo Capacity</u> .....K.V.A.	1,388,660	765	56,873	17,450
Dynamos, A.C. ....No.	398	5	48	14
Total capacity .....K.V.A.	1,386,626	765	56,873	17,450
Dynamos, D.C. ....No.	21	...	...	...
Total capacity .....K.W.	2,034	...	...	...



Table 10 - Total Equipment including Auxiliary Plant Equipment

	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
	2,548,701 43.27	1,815,430 30.82	413,375 7.02	135,026 2.29	150,627 2.56	555,062 9.42
	254 2,513,542 7 4,150	336 1,774,121 13 3,058	37 376,925 13 4,521	... ... 5 2,468	18 69,520 32 8,904	68 502,255 12 1,639
	9 29,646 5 1,363	6 36,500 9 1,751	8 29,240 36 2,689	23 114,762 185 17,796	18 68,300 58 3,903	17 47,191 31 3,977
	2,186,125 44.76 275	1,470,751 30.11 346	331,564 6.79 80	114,776 2.35 103	124,007 2.54 80	432,345 8.85 112
	2,185,605 2 520	1,470,106 7 645	331,295 10 269	113,513 108 1,263	121,388 42 2,619	431,993 16 352
	2,515,845 232 2,485,407 6 3,450	521,391 175 513,712 5 608	260,665 18 247,800 3 210	49,917 ... ... 2 1,118	98,977 16 68,560 25 5,609	543,717 61 492,985 6 724
	7 25,625 5 1,363	2 6,300 4 771	3 12,000 14 655	9 37,940 146 10,859	7 21,550 52 3,258	16 47,041 28 2,967
	2,159,386 249 2,158,866 2 520	440,798 175 440,603 6 195	201,473 30 201,424 4 49	41,001 61 39,952 96 1,049	78,965 55 77,496 40 1,469	424,373 95 34,021 16 352
	32,856 22 28,135 1 700	1,294,039 161 1,260,409 8 2,450	152,710 19 129,125 10 4,311	85,109 ... ... 3 1,350	51,650 2 960 7 3,295	11,345 7 9,270 6 915
	2 4,021 ... ...	4 30,200 5 980	5 17,240 22 2,034	14 76,822 39 6,937	11 46,750 6 645	1 150 3 1,010
	26,739 26 26,739 ... ...	1,029,953 171 1,029,503 1 450	130,091 50 129,871 6 220	73,775 42 73,561 12 214	45,042 25 43,892 2 1,150	7,972 17 7,972 ... ...

Table 11 - Main Plant Equipment, 1931

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Primary Power</u> ..... H.P.	5,706,757	5,527	126,349	126,760
Per cent of total for Canada .....	100.00	0.10	2.21	2.22
<u>Water wheels and turbines</u> ..... No.	790	9	52	16
Total capacity ..... H.P.	5,422,319	464	80,007	105,485
<u>Steam reciprocating engines</u> ..... No.	66	...	5	9
Total capacity ..... H.P.	18,590	...	2,195	3,380
<u>Steam turbines</u> ..... No.	65	3	13	7
Total capacity ..... H.P.	238,911	4,173	43,308	17,300
<u>Gas and oil engines</u> ..... No.	317	5	15	6
Total capacity ..... H.P.	26,929	890	839	595
<u>Total Dynamo Capacity</u> ..... K.V.A.	4,727,376	4,929	102,101	107,477
Per cent of total for Canada .....	100.00	0.10	2.16	2.27
<u>Dynamos, A.C.</u> ..... No.	1,033	15	79	31
Total capacity ..... K.V.A.	4,722,184	4,921	102,011	106,488
<u>Dynamos, D.C.</u> ..... No.	194	1	5	8
Total capacity ..... K.W.	5,192	8	90	989
<u>Commercial Stations</u>				
<u>Total Primary Power</u> ..... H.P.	4,046,810	4,637	58,191	113,525
Per cent of total for Canada .....	100.00	0.11	1.44	2.81
<u>Water wheels and turbines</u> ..... No.	540	9	19	10
Total capacity ..... H.P.	3,916,720	464	15,142	92,650
<u>Steam reciprocating engines</u> ..... No.	40	...	5	9
Total capacity ..... H.P.	8,744	...	2,195	3,380
<u>Steam turbines</u> ..... No.	34	3	10	7
Total capacity ..... H.P.	106,168	4,173	40,650	17,300
<u>Gas and oil engines</u> ..... No.	234	...	6	4
Total capacity ..... H.P.	15,178	...	204	195
<u>Total Dynamo Capacity</u> ..... K.V.A.	3,382,926	4,164	45,704	96,874
Per cent of total for Canada .....	100.00	0.13	1.35	2.86
<u>Dynamos, A.C.</u> ..... No.	666	10	34	23
Total capacity ..... K.V.A.	3,385,318	4,156	45,614	95,885
<u>Dynamos, D.C.</u> ..... No.	174	1	5	8
Total capacity ..... K.W.	3,608	8	90	989
<u>Municipal Stations</u>				
<u>Total Primary Power</u> ..... H.P.	1,659,947	890	68,158	13,235
Per cent of total for Canada .....	100.00	0.05	4.10	0.80
<u>Water wheels and turbines</u> ..... No.	250	...	33	6
Total capacity ..... H.P.	1,505,599	...	64,965	12,835
<u>Steam reciprocating engines</u> ..... No.	26	...	...	...
Total capacity ..... H.P.	9,846	...	...	...
<u>Steam turbines</u> ..... No.	32	...	3	...
Total capacity ..... H.P.	132,751	...	2,658	...
<u>Gas and oil engines</u> ..... No.	83	5	9	2
Total capacity ..... H.P.	11,751	890	635	400
<u>Total Dynamo Capacity</u> ..... K.V.A.	1,338,450	765	56,397	10,603
Per cent of total for Canada .....	100.00	0.06	4.21	0.79
<u>Dynamos, A.C.</u> ..... No.	367	5	45	8
Total capacity ..... K.V.A.	1,336,866	765	56,397	10,603
<u>Dynamos, D.C.</u> ..... No.	20	...	...	...
Total capacity ..... K.W.	1,584	...	...	...
<u>Hydraulic Stations</u>				
<u>Total Dynamo Capacity</u> ..... K.V.A.	4,490,784	414	66,542	91,163
Per cent of total for Canada .....	100.00	0.01	1.48	2.03
<u>Dynamos, A.C.</u> ..... No.	774	7	52	15
Total capacity ..... K.V.A.	4,489,966	406	66,542	91,038
<u>Dynamos, D.C.</u> ..... No.	10	1	...	1
Total capacity ..... K.W.	818	8	...	125
<u>Fuel Stations</u>				
<u>Total Dynamo Capacity</u> ..... K.V.A.	236,592	4,515	35,559	16,314
Per cent of total for Canada .....	100.00	1.91	15.03	6.90
<u>Dynamos, A.C.</u> ..... No.	259	8	27	16
Total capacity ..... K.V.A.	232,218	4,515	35,469	15,450
<u>Dynamos, D.C.</u> ..... No.	184	...	5	7
Total capacity ..... K.W.	4,374	...	90	864

x - Capacity of one hydraulic station in Saskatchewan included under Manitoba.

Table 11 - Main Plant Equipment, 1931

	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
	2,518,428	1,775,059	x 386,395	x 135,026	128,347	504,866
	44.13	31.10	6.77	2.37	2.25	8.85
	254	336	37	...	18	68
	2,513,542	1,774,121	376,925	...	69,520	502,255
	1	5	13	5	19	9
	700	408	4,521	2,468	4,254	664
	3	...	2	23	13	2
	4,146	...	2,500	114,762	52,050	680
	1	8	34	185	51	17
	40	530	2,449	17,796	2,523	1,267
	2,159,741	1,436,989	306,401	114,776	104,677	390,285
	45.69	30.40	6.48	2.43	2.21	8.26
	261	331	72	103	56	85
	2,159,221	1,436,794	306,132	113,513	103,158	389,946
	2	6	10	108	40	14
	520	195	269	1,263	1,519	339
	2,485,572	513,870	248,665	49,917	77,637	494,796
	61.42	12.70	6.14	1.23	1.92	12.23
	232	175	18	...	16	61
	2,485,407	513,712	247,800	...	68,560	492,985
	...	3	3	2	13	5
	...	158	210	1,118	1,409	274
	1	...	...	9	2	2
	125	...	...	37,940	5,300	680
	1	...	14	146	48	15
	40	...	655	10,859	2,368	857
	2,133,002	434,189	190,223	41,001	60,413	383,356
	62.94	12.81	5.61	1.21	1.78	11.31
	235	168	27	61	36	72
	2,132,482	433,994	190,174	39,852	60,044	383,017
	2	5	4	96	38	14
	520	195	49	1,049	269	339
	32,856	1,261,189	137,730	85,109	50,710	10,070
	1.98	75.98	8.30	5.13	3.05	0.61
	22	161	19	...	2	7
	28,135	1,260,409	129,125	...	960	9,270
	1	2	10	3	6	4
	700	250	4,311	1,350	2,845	390
	2	...	2	14	11	...
	4,021	...	2,500	76,822	46,750	...
	...	3	20	39	3	2
	...	530	1,794	6,937	155	410
	26,739	1,002,800	116,178	73,775	44,264	6,929
	2.00	74.92	8.68	5.51	3.31	0.52
	26	163	45	42	20	13
	26,739	1,002,800	115,958	73,561	43,114	6,929
	...	...	6	12	2	...
	...	...	220	214	1,150	...
	2,155,451	1,436,269	299,412	...	53,200	388,333
	48.00	31.98	6.67	...	1.13	8.65
	256	325	37	...	14	68
	2,154,931	1,436,174	299,412	...	53,200	388,263
	2	4	...	...	...	2
	520	95	...	...	...	70
	4,290	720	6,989	114,776	51,477	1,952
	1.81	0.30	2.95	48.51	21.75	0.83
	5	6	35	103	42	17
	4,290	620	6,720	113,513	49,958	1,683
	...	2	10	108	40	12
	...	100	269	1,263	1,519	269



Table 12 - Main Plant Equipment Classified, 1931

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	
<u>Primary Power</u> ..... H.P.	5,706,757	5,527	126,349	126,760	2,518,428	
<u>Water wheels &amp; turbines</u> ..No.	790	9	52	16	254	
Total H.P.	5,422,319	464	80,007	105,485	2,513,542	
Under 500 H.P. ....No.	157	9	22	3	28	
Total H.P.	31,275	464	4,767	935	6,033	
500 - 2,000 H.P. ....No.	216	...	16	2	73	
Total H.P.	244,369	...	18,900	2,050	82,609	
2,000 - 5,000 H.P. ....No.	128	...	10	6	35	
Total H.P.	377,525	...	33,040	17,500	100,950	
5,000 -10,000 H.P. ....No.	106	...	4	1	36	
Total H.P.	696,450	...	23,300	5,000	249,450	
10,000 -15,000 H.P. ....No.	76	...	...	...	28	
Total H.P.	881,300	...	...	...	302,100	
15,000 -25,000 H.P. ....No.	50	...	...	4	17	
Total H.P.	923,500	...	...	80,000	352,500	
25,000 up .....No.	57	...	...	...	37	
Total H.P.	2,267,900	...	...	...	1,419,900	
<u>Steam reciprocating</u> .... No.	66	...	5	9	1	
<u>engines</u> ..... H.P.	18,590	...	2,195	3,380	700	
Under 500 H.P. ....No.	54	...	3	6	...	
Total H.P.	6,730	...	395	480	...	
500 H.P. up . ....No.	12	...	2	3	1	
Total H.P.	11,810	....	1,800	2,900	700	
<u>Steam turbines</u> ..... No.	66	3	13	7	3	
Total H.P.	238,919	4,173	43,308	17,300	4,146	
Under 500 H.P. ....No.	5	...	1	1	1	
Total H.P.	1,357	...	402	250	125	
500 - 2,000 H.P. ....No.	22	2	6	4	1	
Total H.P.	23,947	2,173	7,206	4,050	1,340	
2,000 - 5,000 H.P. ....No.	24	1	3	1	1	
Total H.P.	69,741	2,000	9,400	3,000	2,681	
5,000 - 10,000 & up ... No.	15	...	3	1	...	
Total H.P.	143,374	...	26,300	10,000	...	
<u>Gas &amp; oil engines</u> ..... No.	317	5	15	6	1	
Total H.P.	26,929	890	839	595	40	
<u>Secondary Power-</u>						
<u>Dynamos, A.C. and D.C.</u> ...No.	1,227	16	84	39	263	
Total K.V.A.	4,727,376	4,929	102,101	107,477	2,159,741	
<u>Dynamos, A.C.</u> .....No.	1,033	15	79	31	261	
Total K.V.A.	4,722,184	4,921	102,011	106,488	2,159,221	
Under 50 K.V.A. ....No.	60	4	8	...	4	
Total K.V.A.	1,938	133	322	...	130	
50 - 200 K.V.A. No.	172	7	17	9	14	
Total K.V.A.	19,020	738	1,711	1,015	1,534	
200 - 500 K.V.A. No.	125	1	12	2	23	
Total K.V.A.	39,009	300	3,713	843	7,697	
500 - 1,000 K.V.A. No.	143	1	11	5	45	
Total K.V.A.	105,707	625	7,905	3,655	34,540	
1,000 - 5,000 K.V.A. No.	269	2	27	10	67	
Total K.V.A.	609,353	3,125	63,060	23,475	148,670	
5,000 - 10,000 K.V.A. No.	107	...	4	1	23	
Total K.V.A.	738,992	...	25,300	7,500	146,900	
10,000 - 15,000 K.V.A. No.	68	...	...	...	31	
Total K.V.A.	732,165	...	...	...	318,000	
15,000 - 25,000 K.V.A. No.	40	...	...	4	16	
Total K.V.A.	742,500	...	...	70,000	309,250	
25,000 and up .....No.	49	...	...	...	38	
Total K.V.A.	1,733,500	...	...	...	1,192,500	
<u>Dynamos, D.C.</u> ..... No.	194	1	5	8	2	
Total K.W.	5,192	8	90	989	520	
Under 50 K.W. ....No.	181	1	4	4	1	
Total K.W.	2,259	8	40	89	20	
50 - 200 K.W. ....No.	9	...	1	3	...	
Total K.W.	633	...	50	250	...	
200 - 500 K.W. ....No.	1	...	...	...	...	
Total K.W.	400	...	...	...	...	
500 and up .....No.	3	...	...	1	1	
Total K.W.	1,900	...	...	650	500	

Table 12 - Main Plant Equipment Classified, 1931

	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal
	1,775,059	386,395	135,026	128,347	504,866	4,046,810	1,659,947
	336	37	...	18	68	540	250
	1,774,121	376,925	...	69,520	502,255	3,916,720	1,505,599
	69	1	...	10	15	108	49
	14,246	125	...	1,920	2,785	19,751	11,524
	116	...	...	...	9	129	87
	129,540	...	...	...	11,270	142,144	102,225
	59	4	...	2	12	93	35
	169,035	12,800	...	8,000	36,200	277,475	100,050
	29	21	...	4	11	74	32
	186,100	130,000	...	23,600	79,000	500,350	196,100
	35	5	...	...	8	57	19
	415,700	66,000	...	...	97,500	645,100	236,200
	18	...	...	2	9	32	18
	299,500	...	...	36,000	155,500	624,000	299,500
	10	6	...	...	4	47	10
	560,000	168,000	...	...	120,000	1,707,900	560,000
	5	13	5	19	9	40	26
	408	4,521	2,468	4,254	664	8,744	9,846
	5	12	3	16	9	34	20
	408	2,271	618	1,944	664	2,944	3,836
	...	1	2	3	...	6	6
	...	2,250	1,850	2,310	...	5,800	6,010
	...	2	23	13	2	34	32
	...	2,500	114,762	52,050	680	106,168	132,751
	...	1	...	...	1	3	2
	...	400	...	...	180	555	802
	...	...	6	2	1	14	8
	...	...	6,678	2,000	500	15,181	8,766
	...	1	9	8	...	11	13
	...	2,100	26,210	24,350	...	30,866	38,875
	...	...	8	3	...	6	9
	...	...	81,874	25,700	...	59,566	84,308
	3	34	185	51	17	234	83
	530	2,449	17,796	2,523	1,267	15,178	11,751
	337	82	211	96	99	840	387
	1,436,989	306,401	114,776	104,677	390,285	3,388,926	1,338,450
	331	72	103	56	85	666	367
	1,436,794	306,132	113,513	103,158	389,946	3,385,318	1,336,866
	5	12	15	6	6	35	25
	148	370	533	152	150	1,106	832
	32	15	40	17	21	111	61
	4,038	1,342	4,546	1,718	2,378	11,719	7,301
	42	7	21	11	6	64	61
	12,801	2,257	6,468	3,075	1,855	19,383	19,626
	65	...	7	3	6	90	53
	48,140	...	4,466	2,088	4,288	66,162	39,545
	102	16	13	14	18	177	92
	206,535	49,413	28,750	42,375	43,950	405,003	204,350
	48	11	4	2	14	64	43
	354,592	70,750	25,000	11,250	97,700	436,630	302,362
	23	5	2	1	6	51	17
	245,040	56,000	25,000	12,500	75,625	553,565	178,600
	4	6	1	2	7	35	5
	68,500	126,000	18,750	30,000	120,000	655,250	87,250
	10	...	...	...	1	39	10
	497,000	...	...	...	44,000	1,236,500	497,000
	6	10	108	40	14	174	20
	195	269	1,263	1,519	339	3,608	1,584
	5	8	107	38	13	166	15
	145	144	1,200	369	244	2,013	246
	1	2	1	...	1	6	3
	50	125	63	...	95	445	188
	...	...	...	1	...	...	1
	...	...	...	400	...	...	400
	...	...	...	1	...	2	1
	...	...	...	750	...	1,150	750

Table 13 - Electric Energy Generated, 1931

	Canada	Prince Edward Island	Nova Scotia
<u>ALL STATIONS</u>			
Total Kw.hours generated .....(thousands)	16,330,867	4,413	257,573
Per cent of total for Canada .....	100.00	0.03	1.58
Kilowatt hours for disposal .. .....(thousands)	16,330,867	4,413	257,573
Disposal of Electrical Energy -Kw. Hours-			
Domestic service .....(thousands)	1,563,704	1,343	19,120
Commercial light .....(thousands)	763,225	899	12,921
Power, street lighting, free service and line losses .....(thousands)	14,003,938	2,171	225,532
Kilowatt hours generated by non-generating stations .....(thousands)	21	...	18
Kilowatt hours generated by generating stations .....(thousands)	16,330,846	4,413	257,555
K.V.A. capacity of generating stations .....	4,877,239	4,929	102,439
Ratio of output to maximum capacity ..... p.c.	39.0	14.3	30.9
Average Kw.hours per K.V.A. ....	3,348	895	2,514
<u>GENERATING STATIONS</u>			
<u>Commercial Stations</u>			
<u>Total</u>			
Kilowatt Hours generated .....(thousands)	12,191,139	3,668	95,381
K.V.A. capacity .....	3,492,801	4,164	45,917
Ratio of output to maximum capacity ..... p.c.	40.6	15.1	28.1
Average Kw.hours per K.V.A. ....	3,490	881	2,077
<u>Hydraulic Stations</u>			
Kilowatt Hours generated .....(thousands)	12,041,775	319	31,931
K.V.A. capacity .....	3,388,768	414	12,924
Ratio of output to maximum capacity ..... p.c.	41.4	8.8	28.2
Average Kw.hours per K.V.A. ....	3,553	771	2,471
<u>Fuel Stations</u>			
Kilowatt Hours generated .....(thousands)	149,364	3,349	63,450
K.V.A. capacity .....	104,033	3,750	32,993
Ratio of output to maximum capacity ..... p.c.	20.0	16.2	28.0
Average Kw. hours per K.V.A. ....	1,436	893	1,923
<u>Municipal Stations</u>			
<u>Total</u>			
Kilowatt Hours generated .....(thousands)	4,139,707	745	162,174
K.V.A. capacity .....	1,384,438	765	56,522
Ratio of output to maximum capacity ..... p.c.	35.0	11.1	32.8
Average Kw. hours per K.V.A. ....	2,990	974	2,869
<u>Hydraulic Stations</u>			
Kilowatt Hours generated .....(thousands)	3,994,007	...	159,162
K.V.A. capacity .....	1,251,879	...	53,956
Ratio of output to maximum capacity ..... p.c.	37.5	...	33.7
Average Kw. hours per K.V.A. ....	3,190	...	2,950
<u>Fuel Stations</u>			
Kilowatt Hours generated .....(thousands)	145,700	745	3,012
K.V.A. capacity .....	132,559	765	2,566
Ratio of output to maximum capacity ..... p.c.	12.6	11.1	13.4
Average Kw. hours per K.V.A. ....	1,099	974	1,173
<u>Total Hydraulic Stations</u>			
Kilowatt Hours generated .....(thousands)	16,035,782	319	191,093
K.V.A. capacity .....	4,640,647	414	66,880
Ratio of output to maximum capacity ..... p.c.	40.2	8.8	32.6
Average Kw. hours per K.V.A. ....	3,456	771	2,857
Kw. hours generated by water power .... (thousands)	16,025,334	304	190,751
Kw. hours generated by auxiliary plants (thousands)	10,448	15	342
<u>Total Fuel Stations</u>			
Kilowatt Hours generated .....(thousands)	295,064	4,094	66,462
K.V.A. capacity .....	236,592	4,515	35,559
Ratio of output to maximum capacity ..... p.c.	15.5	15.0	26.7
Average Kw. hours per K.V.A. ....	1,247	907	1,869



Table 13 - Electric Energy Generated, 1931

	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
	404,350 2.48 408,000	8,066,026 49.39 6,290,590	4,948,819 30.30 6,690,211	1,084,763 6.64 1,084,763	134,014 0.82 134,014	205,082 1.25 206,779	1,225,827 7.51 1,224,130
	17,676 11,991 378,333	223,671 165,476 5,931,837	868,072 378,406 5,443,733	257,482 76,023 751,258	35,523 19,279 79,212	30,196 22,864 153,719	110,621 75,366 1,038,143
	3 404,347 113,727 42.1 3,555	... 8,066,026 2,186,125 43.0 3,690	... 4,948,819 1,468,786 39.0 3,369	... 1,084,763 331,564 38.9 3,272	... 134,014 114,776 14.7 1,168	... 205,082 123,229 19.0 1,664	... 1,225,827 431,664 32.4 2,840
	384,584 96,874 45.3 3,970	8,024,980 2,159,386 43.3 3,716	1,531,822 440,798 39.8 3,475	734,201 201,473 41.6 3,644	38,339 41,001 14.3 935	165,128 78,965 23.9 2,091	1,213,036 424,223 32.7 2,859
	353,706 80,900 49.9 4,372	8,024,861 2,159,246 43.7 3,717	1,531,743 440,683 39.8 3,476	733,552 200,850 41.7 3,652	... ... ... ...	154,615 70,902 24.9 2,181	1,211,048 422,849 32.7 2,864
	30,878 15,974 22.1 1,933	119 140 9.7 850	79 115 7.8 687	649 623 11.9 1,042	38,339 41,001 14.3 935	10,513 8,063 14.9 1,304	1,988 1,374 16.5 1,447
	19,763 16,853 17.8 1,173	41,046 26,739 17.5 1,535	3,416,997 1,027,988 38.6 3,324	350,562 130,091 34.3 2,695	95,675 73,775 14.8 1,297	39,954 44,264 10.3 903	12,791 7,441 19.6 1,719
	19,076 16,513 17.6 1,155	40,060 22,589 20.2 1,773	3,416,367 1,027,383 38.6 3,325	346,137 123,725 35.8 2,798	... ... ... ...	1,379 850 18.5 1,622	11,826 6,863 19.7 1,723
	687 340 23.1 2,021	986 4,150 2.7 238	630 605 11.9 1,041	4,425 6,366 7.95 696	95,675 73,775 14.8 1,297	38,575 43,414 10.1 889	965 578 19.0 1,667
	372,782 97,413 45.6 3,827 371,909 873	8,064,921 2,181,835 43.1 3,696 8,064,583 338	4,948,110 1,468,066 39.0 3,370 4,946,264 1,846	1,079,689 324,575 39.6 3,326 1,079,567 122	... ... ... ... ... ...	155,994 71,752 24.8 2,174 155,531 463	1,222,874 429,712 32.5 2,846 1,216,425 6,449
	31,565 16,314 22.1 1,935	1,105 4,290 2.9 258	709 720 11.2 985	5,074 6,989 8.3 726	134,014 114,776 14.7 1,168	49,088 51,477 10.9 954	2,953 1,952 17.3 1,513

Table 14 - Fuel, 1931

Provinces	Bituminous Coal			
	Canadian		Imported	
	Quantity Tons	Value \$	Quantity Tons	Value \$
Canada .....	183,951	835,772	28,057	158,461
Prince Edward Island .....	1,296	8,609	3,563	23,131
Nova Scotia .....	66,658	210,649	...	...
New Brunswick .....	26,386	128,806	3,607	26,362
Quebec .....	...	...	2,611	18,227
Ontario .....	4,783	25,819	18,126	89,691
Manitoba .....	3,700	16,056	150	1,050
Saskatchewan .....	67,272	399,605	...	...
Alberta .....	3,768	9,023	...	...
British Columbia .....	10,088	37,205	...	...

	Kerosene		Fuel Oil	
	Quantity Gal.	Value \$	Quantity Gal.	Value \$
Canada .....	66,184	14,393	3,182,691	351,076
Prince Edward Island .....	140	35	87,550	9,541
Nova Scotia .....	...	...	115,947	13,074
New Brunswick .....	270	59	139,060	14,513
Quebec .....	...	...	41,747	4,436
Ontario .....	...	...	138,154	10,026
Manitoba .....	2,772	556	292,543	41,856
Saskatchewan .....	52,492	11,684	1,522,187	191,926
Alberta .....	10,465	2,031	164,440	25,870
British Columbia .....	45	28	681,063	39,834

Table 14 - Fuel, 1931

	Anthracite Coal		Lignite Coal Canadian		Gasoline	
	Quantity Tons	Value \$	Quantity Tons	Value \$	Quantity Gal.	Value \$
	575	4,243	180,403	458,344	89,177	21,058
	...	...	...	...	40	120
	...	...	...	...	...	...
	...	...	300	1,500	...	...
	575	4,243	...	...	850	183
	...	...	...	...	...	...
	...	...	4,637	14,659	7,628	2,131
	...	...	85,702	293,986	34,420	8,393
	...	...	89,764	148,199	15,024	4,431
	...	...	...	...	31,215	5,800

	Wood		Natural Gas		Other Fuel	Total
	Quantity Cord	Value \$	Quantity 1000 cu.ft.	Value \$	Value \$	Value \$
	11,195	31,876	325,332	9,484	7,545	1,892,252
	50	250	...	...	...	41,686
	...	...	...	...	...	223,723
	88	158	...	...	...	171,398
	...	...	...	...	7,484	34,573
	1,500	1,500	...	...	...	127,036
	4,700	21,662	...	...	25	97,995
	...	...	...	...	...	905,594
	1,750	2,821	325,332	9,484	36	201,895
	3,107	5,485	...	...	...	88,352











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**CENSUS OF INDUSTRY, 1932**

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

(Prepared in collaboration with the  
Dominion Water Power and Hydrometric  
Bureau, Department of the Interior)

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Published by Authority of the HON. H.H. STEVENS, M.P.,  
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**DOMINION BUREAU OF STATISTICS**  
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**OTTAWA**

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CENTRAL ELECTRIC STATION INDUSTRY, 1932

For the purpose of the census, central electric stations are defined as companies, municipalities or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell; many of them also purchase power to supplement their own output, and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 24 stations which were holding generating equipment classed as auxiliary plant equipment. Sixteen of them purchased all their electric energy and the remaining eight generated only 1,399,000 kilowatt hours. The Brandon station of the Manitoba Power Commission which was idle the greater part of the year, generated 1,084,200 kilowatt hours, or 78 per cent of this total, and the remaining seven stations generated only 314,800 kilowatt hours. This explains the rather anomalous item in table 13 showing the output of non-generating stations.

Included in these statistics are those of some stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants, the statistics pertaining to the central electric station phase of the industry have been segregated as accurately as possible.

The total output of all stations in Canada during 1932 amounted to 16,052,057,000 kilowatt hours, which was a decrease from the 1931 output of 278,310,000, or 1.7 per cent. The exports to the United States dropped from 1,227,036,000 kilowatt hours in 1931 to 659,691,000, or by 567,345,000 kilowatt hours, which was more than twice the decrease in the output. The energy consumed in Canada, including all line losses, amounted to 15,392,918,000 kilowatt hours, or an increase of 283,641,000 kilowatt hours over the corresponding quantity for 1931. The surplus off-peak power exported to the United States by the Niagara plants amounted to 170,783,243 kilowatt hours in 1931 but in 1932 it was only 234,685 kilowatt hours. These off-peak exports decreased rapidly during the last six months of 1931, ceasing altogether at the end of the year, and small quantities were exported in 1932 only in March, September and October. In June 1933 they were resumed, but on a considerably reduced scale. These exports depend entirely on the market on the United States side of the river and, of course, are limited to quantities available.

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Service of the Department of Trade and Commerce, and the same branch of the department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1933, the export duty amounted to \$87,745 as against \$182,702 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export for the calendar year 1932, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES, 1932 (Calendar Year).

Company	Produced for Export Kilowatt Hours	Exported Kilowatt Hours
Hydro Electric Power Commission of Ontario .....	354,449,700	350,019,900
Hydro Electric Power Commission of Ontario (Surplus) .....	224,700	219,385
Cedar Rapids Manufacturing and Power Company, Ltd. ....	187,269,450	180,076,312
Canadian Niagara Power Company, Ltd. ....	109,022,500	103,049,092
Canadian Niagara Power Company, Ltd. (Surplus) .....	15,300	15,300
Western Power Company of Canada, Ltd. ....	...	...
Ontario and Minnesota Power Company, Ltd. ....	13,329,550	13,329,550
Maine and New Brunswick Electrical Power Company .....	12,025,278	11,434,344
British Columbia Electric Railway Company, Ltd. ....	162,132	141,055
Northport Power and Light Company .....	230,668	230,668
Maritime Electric Company, Ltd. ....	320,752	320,752
Southern Canada Power Company .....	434,080	423,015
Northern British Columbia Power Company .....	50,690	50,690
The International Railway Company .....	200,121	210,121
Fraser Companies, Ltd. ....	8,009,400	7,979,000
Detroit and Windsor Subway Company .....	371,900	371,900
TOTAL .....	666,125,221	667,880,085
Kilowatt hours produced for export and exported by central electric stations only	677,915,706	659,690,964



Of the total output of 16,052,057,000 kilowatt hours, 15,723,838,000 kilowatt hours, or 98 per cent, were produced by water power and the remaining 2 per cent by steam and internal combustion engines. The rated capacity of water wheels and turbines in 1932 was 6,036,259 horse power, having increased from 1,754,130 horse power in 1920. This was an increase of 244 per cent in twelve years whereas the capacity of all main plant thermal engines rose from 142,894 horse power in 1920 to 307,395 horse power in 1932, an increase of 115 per cent.

The total hydraulic installation in all industries in Canada in 1932, as compiled by the Dominion Water Power and Hydrometric Bureau, was 7,045,260 horse power which was about 16 per cent of the total that the recorded falls would warrant installing under present day practices. The available and developed water power in Canada is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24-hour power at 80% efficiency		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1932	1933
(1)	(2) H.P.	(3) H.P.	(4) H.P.	(5) H.P.
Prince Edward Island .....	3,000	5,300	2,439	2,439
Nova Scotia .....	20,800	128,300	112,167	112,167
New Brunswick .....	68,600	169,100	133,681	133,681
Quebec .....	8,459,000	13,064,000	3,357,320	3,493,320
Ontario .....	5,330,000	6,940,000	2,208,105	2,355,105
Manitoba .....	3,309,000	5,344,500	390,925	390,925
Saskatchewan .....	542,000	1,082,000	42,035	42,035
Alberta .....	390,000	1,049,500	71,597	71,597
British Columbia .....	1,931,000	5,103,500	713,792	717,602
Yukon and Northwest Territories ....	294,000	731,000	13,199	13,199
CANADA .....	20,347,400	33,617,200	7,045,260	7,332,070

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals.

With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power.

Of the total water power developed in Canada the central electric stations contained 86 per cent and pulp and paper mills operating in 1932 contained 6.5 per cent, but these mills purchased from central electric stations 5,695,478,000 kilowatt hours, or 35.5 per cent of their total output. Excluding exports, the ratio was 37.0 per cent and nearly half of the current purchased, or 2,695,076,000 kilowatt hours, was for use in electric boilers. Quebec mills purchased the major part of this power, using 2,183,502,000 kilowatt hours in electric boilers and 1,983,543,000 kilowatt hours for other purposes, or a total of 4,172,045,000 kilowatt hours, which was 61 per cent of the total sales within the province, or output less exports; the exports from Quebec to Ontario for use in that province during the year amounted to 1,452,732,000 kilowatt hours, or 17.1 per cent of the Quebec output. New Brunswick pulp and paper mills also purchased a very large percentage of the output of central electric stations of that province. The electro-chemical industry is also a large user of electricity. Of 16 plants reporting in 1932, 15 purchased 1,724,356,000 kilowatt hours from central electric stations, or 10.7 per cent of their total output. The Ontario plants, most of which are in the Niagara peninsula, purchased 750,276,000 kilowatt hours and the remainder was purchased by the Consolidated Mining and Smelting Company in British Columbia and by Quebec plants.

The following table shows the provincial production plus the imports less exports, the net amount being the consumption within the province, including all line losses. Only Ontario, Alberta and British Columbia and the Yukon showed decreases from 1931 and for Canada the increase amounted to 1.88 per cent.



CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)  
(Thousands of Kilowatt Hours)

Province	1932	1931	Increase + Decrease -	
			Kilowatt Hours	Per cent
Prince Edward Island .....	4,662	4,413	+ 249	5.64
Nova Scotia .....	279,854	257,573	+ 22,281	8.65
New Brunswick .....	421,142	397,076	+ 24,066	6.06
Quebec .....	6,845,565	6,469,206	+ 376,359	5.82
Ontario .....	5,250,962	5,331,386	- 80,424	1.51
Manitoba .....	1,087,167	1,084,919	+ 2,248	0.21
Saskatchewan .....	135,898	134,014	+ 1,884	1.41
Alberta .....	197,395	207,002	- 9,607	0.46
British Columbia and Yukon .....	1,170,273	1,223,688	- 53,415	4.37
CANADA .....	15,392,918	15,109,277	+ 283,641	1.88

Sales in large blocks, especially for electric boilers, are at rates considerably below the rates charged for current to small power customers and to lighting customers and consequently have a very marked effect on the average revenue for all power produced, or for all sales for power purposes. In Quebec the average revenue for the total output was considerably lower than for any other province, being only 0.53 cent. In New Brunswick and Nova Scotia it was 0.77 cent and 1.56 cent, respectively; in these provinces sales to pulp and paper mills were important factors. In Manitoba the average was only 0.60 cent per kilowatt hour, the main factor in this low average being a flat rate for water heaters in Winnipeg which reduced the provincial domestic service rate to 1.06 cents per kilowatt hour, by far the lowest of all the provinces.

In making comparisons between groups of stations all factors should be considered as far as it is possible or very inaccurate deductions may be made.

TABLE 1 - COMPARATIVE SUMMARY, 1923-1932

There has been little change in the number of plants operated during the past decade but the investment has increased from \$581,780,611 in 1923 to \$1,335,886,987, or by 130 per cent. The output also more than doubled, increasing from 8,099,192,000 to 18,093,802,000 kilowatt hours in 1930 and to 16,052,057,000 kilowatt hours in 1932. The number of domestic service customers, or the number of homes using electricity, increased by 437,239 or 47.5 per cent, amounting to 1,357,462 in 1932. Although the output was doubled the rated capacity in main plant was almost trebled, increasing from 1,861,845 K.V.A. in 1923 to 5,278,204 K.V.A., or by 183.5 per cent. In computing the revenues in this table inter-station payments have been deducted and the payments by consumers and United States importers only have been considered revenue.

TABLE 2 - POWER PLANTS

The definition of a central electric station as adopted for census purposes was given at the beginning of this report. Some organizations operate several systems which are in different municipalities and which are not connected by transmission lines, and, in other cases, many municipalities are served from one power plant. The organizations reporting are counted as they report. If a commercial organization makes a separate report for each of its subsidiary companies, each such subsidiary company is counted, and if it includes them all in one report, they are counted as only one organization. The nature of control is so varied that it is not practicable to do otherwise. The power plants shown in this table are individual plants, counted irrespective of ownership or location. In some cases, two or more of these are operated by one company, some of them being close together, and others, miles apart. During the year there was a net increase in plants operated of 13. In Ontario, Saskatchewan, Alberta and British Columbia increases of 5, 2, 6 and 4 plants, respectively, were recorded and in New Brunswick there was a decrease of 4 plants.

TABLE 3 - CAPITAL

The capital employed in the industry is reported under four heads, viz., generation, transmission, distribution, and general. Generation includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. Transmission includes investments in receiving stations and sites, rights of way of transmission lines and step-up transformers. Distribution includes investments in substations and sites and rights of way of distribution lines, switchboards and step-down transformers in receiving stations and substations, distribution lines, line transformers, meters, etc. General includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total as at December 31, of stations operating and does not

include any investments by new organisations not yet operating, but does include expenditures by organizations operating plants which have been made for future installations of equipment. Consequently the averages per horse power and per K.V.A. are increased by the inclusion of such capital. The averages of investment per mile of distribution and transmission line are more indicative of the different types of lines in each province than of comparative costs of the same types. The total investment of \$1,335,886,987 as at December 31, 1932, was the largest investment in any manufacturing industry in Canada and was an increase over the 1931 total of \$105,898,036. Quebec stations which accounted for 43 per cent of the total investment showed an increase during the year from \$495,841,547 to \$574,953,411 and Ontario stations increased from \$463,410,859 to \$473,717,409. The averages of total capital per horse power and per K.V.A. include all transmission, distribution and general capital, but the averages of generation capital per rated unit of power equipment include only investments in power houses, etc. as described above.

TABLE 4 - REVENUES

The schedule required a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service which includes lighting and all other uses in private residences, (3) commercial light, (4) power, small, 50 K.W. and under, (5) power, large, over 50 K.W., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge for street lighting, to public buildings, etc. The revenue is the gross revenue less cost of power or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In previous reports this exception was not made and consequently the revenues of Ontario, New Brunswick and Alberta, which purchased power from other provinces, were lower than they should have been. For the last two provinces the differences were slight, but for Ontario in 1931 revenue from large power would have been increased from \$20,964,502 to \$27,253,951 and total revenue would have been increased by the same amount if computed as in 1932. Also, by dividing this total revenue by the kilowatt hours generated plus the kilowatt hours imported, the average revenue per kilowatt hour sold would have been reduced from 0.95 to 0.81 cent. As explained previously, the average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission and distribution all affect the rates. An outstanding example of the effect of supply is the city of Winnipeg, Manitoba, which, with an abundant supply of hydro-electric power, has a domestic lighting rate of 3 cents net per kilowatt hour for the first block and 0.9 cent for the remainder, but current for water heaters is sold on a flat rate basis and consequently large quantities are used, reducing the average cost per kilowatt hour for the combined services to 0.88 cent. Fort William, Ontario, also with a combination of low rates for light and flat rates for water heaters, had an average for all domestic services of 0.7 cent per kilowatt hour. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but for domestic service and farm services and for commercial light, line losses were not included, the consumption for these two services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses.

TABLE 5 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Salaries were reduced from \$26,306,956 in 1931 to \$23,261,166 and the cost of fuel was somewhat lower but the other two items were larger. Taxes paid by municipal systems include taxes levied on commercial plants acquired by the Ontario provincial system and continued, and, in Manitoba, Saskatchewan and Alberta, taxes paid by the municipal systems of Winnipeg, Saskatoon, Lethbridge and Calgary accounted for practically the total amount. Taxes paid by other municipal systems were relatively small. Taxes paid by commercial stations amounted to \$5,484,511, or 6.2 mills on the dollar of capital including investments in plant, operating capital, etc. In relation to gross revenues, taxes of commercial stations were 6.3 per cent.

TABLE 6 - EMPLOYEES

There was a decrease in the number of employees from 1931 of 1,619, or 9.5 per cent. The decreases were general throughout all the provinces except New Brunswick and this was the second year to show decreased employment. The largest decreases were in Quebec and Ontario where cuts of 661, or 16.0 per cent, and 575, or 7.7 per cent, respectively, were made.

TABLE 7 - CUSTOMERS

As explained under table 4, the schedule asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality itself distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. British Columbia led with an average of 17.88 domestic service customers per 100 population, Ontario followed with an average of 16.92, and Quebec was next with 13.26. Although the fuel stations generated only 2 per cent of the total output they served 94,869 domestic service customers, or 7.0 per cent of the total.



TABLE 8 - POLE LINE MILEAGE

The pole line mileage is divided into two divisions, (a) transmission, which includes lines from power houses to receiving stations, and (b) distribution, which includes lines from receiving stations to substations and to customers and, if the power is not stepped up in any power house for transmission, all the pole line mileage of that system is included with the distribution mileage. These mileages are counted irrespective of the number of circuits carried on the poles and towers. Increases in pole line mileage were recorded in every province, Ontario leading with a gain of 438 miles and Nova Scotia was second with 290 miles, the total increase for Canada being 1,446 miles.

TABLES 9-10-11 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using fuel only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 2,111,000 kilowatt hours being generated during the year by this auxiliary equipment. In previous years the greater part of this output of auxiliary equipment in hydro-electric plants was produced by British Columbia stations, but such operations were greatly reduced in 1931 and 1932. During the year the net increase in main plant equipment was 636,897 horse power in primary power and 550,828 K.V.A. in dynamo capacity. Quebec stations added 398,845 horse power, Ontario stations added 95,440 horse power, British Columbia stations, 57,513 horse power, and Manitoba stations, 53,925 horse power. During the year 14 hydraulic turbines with capacities of over 25,000 horse power were added with an average capacity of 36,700 horse power. Quebec stations added 10 of these and Ontario stations added 4. One of these was installed in 1931 but was not taken into the statistics until 1932. In Manitoba three wheels of 20,000 horse power each and in British Columbia three wheels of 19,000 horse power each were added. There was a net increase in D.C. dynamos of 9 but a decrease in the total capacity of 53 kilowatts.

TABLE 13 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt hour meters, the kilowatt hours are estimated as best possible. The K.V.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 K.V.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio for 1932 was 35.9 per cent and was the lowest during the past decade. The highest ratio was reached in 1928 with 51.2 per cent and the ratio has decreased each succeeding year. It is quite obvious that the output will never reach 100 per cent of the rated capacity of the industry and it is also apparent that the present installations could meet a demand considerably greater than the 1932 load. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale has been growing quite rapidly, rising from 260,489,000 kilowatt hours in 1924 to 2,835,339,000 kilowatt hours in 1932. The electricity sold for use in electric boilers during 1931 and 1932 was as follows.

ELECTRICITY SOLD FOR USE IN ELECTRIC BOILERS  
(Thousands of Kilowatt Hours)

	1931	1932
January .....	146,422	221,722
February .....	140,605	216,103
March .....	145,948	238,503
April .....	191,119	258,160
May .....	153,920	219,912
June .....	128,333	200,720
July .....	117,200	193,827
August .....	119,633	210,034
September .....	126,849	216,719
October .....	184,531	278,852
November .....	209,351	289,223
December .....	208,116	292,564
TOTAL .....	1,872,025	2,836,339

At the foot of table 13 is shown the total quantity of power generated to which is added the imports and from which is deducted the exports, leaving the quantity for consumption within each province. A complete segregation by classes of customers and line losses was not made in Ontario and consequently the last five items were grouped for Ontario and for Canada. Consumptions for street lighting and power purposes contain some estimates but the data for domestic service and commercial lighting consumptions were fairly complete.

#### TABLE 14 - FUEL

The total fuel bill was reduced from \$1,892,252 in 1931 to \$1,833,515 in 1932. No anthracite coal was reported and the imported coal was reduced from 28,057 tons to 8,226 tons. The greater part of the gasoline, kerosene and fuel oil was used in Saskatchewan and Alberta.

#### DOMESTIC SERVICE

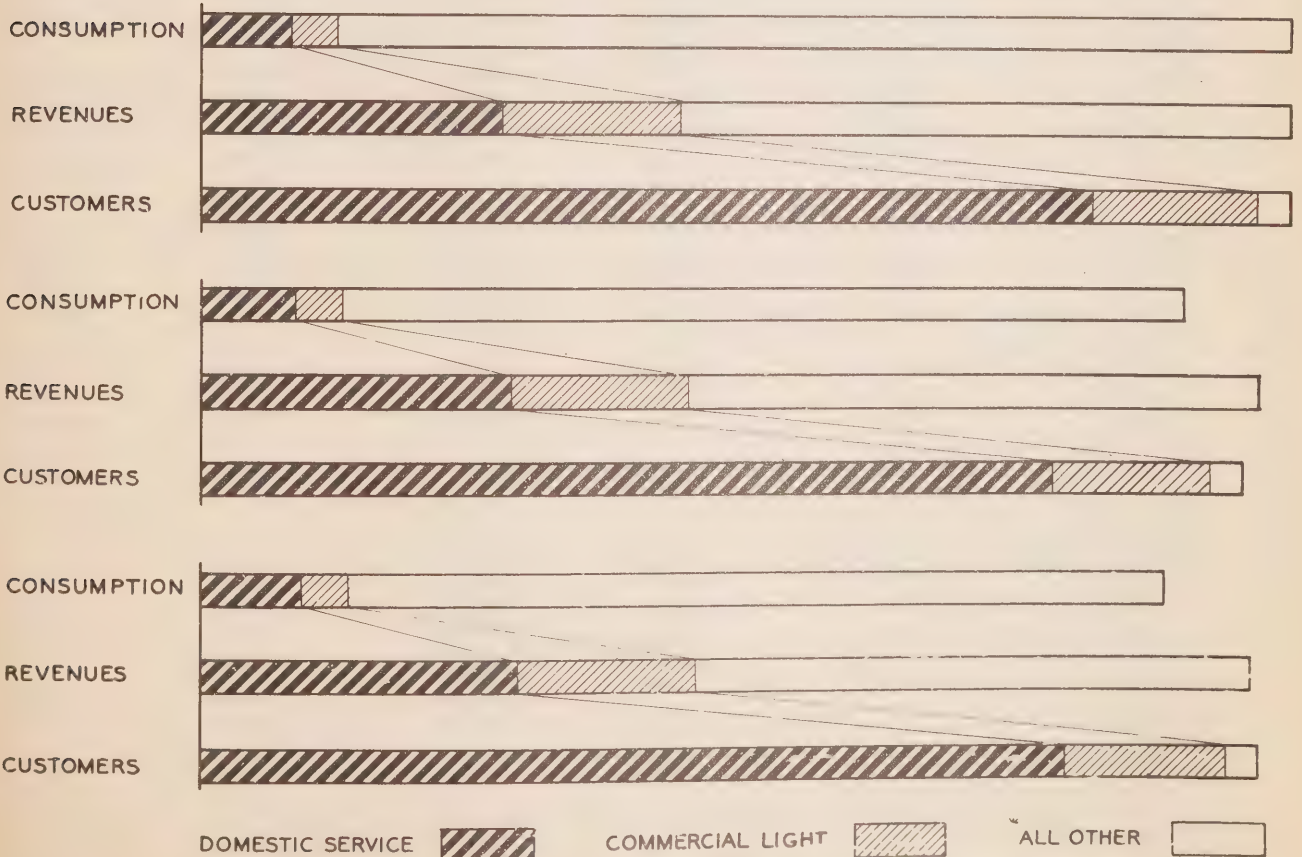
On the following page is a table bringing together and analysing the domestic service data for each province. The concentration of population in the cities, towns and villages having electric service would affect the number of customers, the number per 100 population, and ratios of consumption to total provincial consumptions and to the domestic consumption in Canada. The price would affect consumption, average bill, average cost per kilowatt hour and, to a lesser degree, the number of customers. The habits and customs of the people also would have an effect on the consumption. British Columbia ranked first in density of customers, Ontario was second and Quebec third. The annual average bills for domestic service were remarkably close together in all the provinces, especially in view of the large differences in consumptions and cost per kilowatt hour. This indicates that with adequate supply low rates greatly induce increased consumption. Manitoba showed by far the lowest average cost per kilowatt hour and the largest consumption per customer and per capita. These were largely affected by the flat rate for water heaters in Winnipeg which increases the consumptions and reduces the average cost per kilowatt hour. The effect of flat rates should always be analysed when comparing costs. The general effect is to greatly increase consumption and reduce average cost per kilowatt hour although the peak demand on the power house might even be reduced.



DOMESTIC SERVICE  
1932

Province	Number of Customers		Average Bill (For Year)	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	Per cent of Total Provincial Consumption	Per cent of Dominion D.S. Consumption
			\$	¢	Kw.Hr.	Kw.Hr.		
P.E. Island .....	3,978	4.52	32.64	8.67	377	17	32.1	0.1
Nova Scotia .....	46,421	9.05	25.88	5.66	457	41	7.6	1.3
New Brunswick .....	35,543	8.69	27.33	5.05	541	47	4.6	1.2
Quebec .....	385,211	13.26	21.31	3.43	621	82	3.5	14.6
Ontario .....	585,343	16.92	27.63	1.77	1,558	262	17.4	55.6
Manitoba .....	71,954	10.21	39.93	1.06	3,756	381	24.9	16.5
Saskatchewan .....	44,952	4.63	40.10	4.99	804	39	26.6	2.2
Alberta .....	57,459	7.76	29.84	5.75	518	40	15.1	1.8
British Columbia and Yukon .....	126,601	17.88	26.45	3.04	870	156	9.4	6.7
CANADA .....	1,357,462	12.92	26.83	2.22	1,208	156	10.7	100.0

## CENTRAL ELECTRIC STATIONS



NOTE: All other includes power, street lighting, free service, exports and line losses

Table 1 - COMPARATIVE SUMMARY, 1932-1923

Principal Data by Class of Station	1932	1931	1930	1929
<u>Electric Power Plants-</u>				
Total .....	572	559	587	585
Hydraulic .....	312	307	311	300
Fuel .....	260	252	276	285
Commercial .....	402	396	421	420
Municipal .....	170	163	166	165
<u>Capital</u>				
Total .....	\$ 1,335,886,987	1,229,988,951	1,138,200,016	1,055,731,532
Commercial .....	\$ 880,013,400	785,915,480	723,890,071	685,771,270
Municipal .....	\$ 455,873,587	444,073,471	414,309,945	369,960,262
Generating .....	\$ 1,191,499,567	1,092,292,089	995,701,285	926,103,973
Non-generating .....	\$ 144,387,420	137,696,862	142,498,731	129,627,559
<u>Revenue (1)</u>				
Total .....	\$ 121,212,679	122,310,730	126,038,145	122,883,446
Commercial .....	\$ 73,124,089	72,103,930	73,261,572	70,874,794
Municipal .....	\$ 48,088,590	50,206,800	52,776,573	52,008,652
Generating .....	\$ 100,821,712	101,475,523	104,632,540	102,704,833
Non-generating .....	\$ 20,390,967	20,835,207	21,405,605	20,178,613
<u>Expenses (2)</u>				
Total .....	\$ 74,306,251	75,235,767	74,209,469	67,432,418
Commercial .....	\$ 30,349,320	32,418,131	33,712,063	31,888,591
Municipal .....	\$ 43,956,931	42,817,636	40,497,406	35,543,827
Generating .....	\$ 40,262,157	41,336,873	40,646,659	36,713,723
Non-generating .....	\$ 34,044,094	33,898,894	33,562,810	30,718,695
<u>Pole Line Mileage-</u>				
Total .....	53,845	52,399	48,814	42,913
Commercial .....	25,010	24,299	23,614	22,356
Municipal .....	28,835	28,100	25,200	20,557
Generating .....	40,675	39,709	35,707	30,718
Non-generating .....	13,170	12,690	13,107	12,195
<u>Customers-</u>				
Total .....	1,657,454	1,632,792	1,607,766	1,555,883
Domestic Service .....	1,357,462	1,336,721	1,317,324	(3) 1,292,481
Commercial Light .....	248,487	244,634	238,847	(4) 233,854
Power (small) .....	28,942	25,913	24,836	28,001
Power (large) .....	20,593	23,583	25,150	1,547
Street lighting .....	1,970	1,941	(5) 1,724	.....
Commercial Stations .....	776,400	758,285	745,608	733,698
Municipal Stations .....	881,054	874,507	862,158	822,185
Generating Stations .....	846,420	835,460	814,268	796,298
Non-generating Stations .....	811,034	797,332	793,498	759,585
<u>Electric Energy Generated-</u>				
Total Kilowatt Hours (thousands) .....	16,052,057	16,330,867	18,093,802	17,962,515
Commercial .....	12,338,216	12,191,139	12,937,014	12,774,107
Municipal .....	3,713,841	4,139,707	5,156,788	5,188,408
<u>Exports of Electricity to the United States (thousands) .....</u> Kw.H.				
States (thousands) .....	659,691	1,227,036	1,612,281	1,444,524
<u>Imports of Electricity from the United States (thousands) .....</u> Kw.H.				
States (thousands) .....	552	5,446	5,757	6,133
<u>Equipment in Generating Stations (Main Plant Only)-</u>				
Total Primary Power .....	H.P. 6,343,654	5,706,757	5,401,108	4,925,555
Total in Commercial Stations .....	H.P. 4,577,493	4,046,810	3,794,819	3,523,625
Total in Municipal Stations .....	H.P. 1,766,161	1,659,947	1,606,289	1,401,930
Total Secondary Power .....	K.V.A. 5,278,204	4,727,376	4,474,865	4,048,019
Total in Commercial Stations .....	K.V.A. 3,850,009	3,388,926	3,181,428	2,940,210
Total in Municipal Stations .....	K.V.A. 1,428,195	1,338,450	1,293,437	1,107,809
<u>Auxiliary Plant Equipment-</u>				
Primary Power .....	H.P. 184,879	184,043	171,453	171,888
Secondary Power .....	K.V.A. 157,077	157,221	145,678	146,251

(1) Duplicates excluded.

(2) Includes wages, cost of power and fuel for 1932-1923 and for 1932-1925 taxes, but not other expenses.

Table 1 - COMPARATIVE SUMMARY, 1932-1923

1928	1927	1926	1925	1924	1923
601	629	595	563	532	532
300	302	294	284	273	269
301	327	301	279	259	263
428	432	393	365	333	335
173	197	202	198	199	197
956,919,603	866,825,285	756,220,066	726,721,087	628,565,093	581,780,611
614,910,399	528,070,964	430,817,426	409,862,801	326,554,580	307,046,240
342,009,204	338,754,321	325,402,640	316,858,286	302,010,513	274,734,371
835,422,031	750,703,270	647,850,154	625,970,883	532,016,164	489,085,939
121,497,572	116,122,015	108,369,912	100,750,204	96,548,929	92,694,672
112,326,819	104,033,297	88,933,733	79,341,584	74,616,863	67,496,893
64,575,700	59,320,175	47,911,555	42,195,543	39,033,665	37,040,835
47,751,119	44,713,122	41,022,178	37,146,041	35,583,198	30,456,058
92,722,293	86,369,058	72,123,290	63,547,553	59,861,915	52,681,003
19,604,526	17,664,239	16,810,443	15,794,031	14,754,948	14,815,890
62,330,860	60,169,781	52,766,799	47,635,531	40,887,779	41,067,329
30,961,337	28,704,496	24,622,619	21,325,649	16,777,557	15,319,394
31,369,523	31,465,285	28,144,180	26,309,882	24,110,222	25,747,935
33,837,618	31,920,941	27,655,269	24,857,279	20,198,257	20,992,105
28,493,242	28,248,840	25,111,530	22,778,252	20,689,522	20,075,224
37,333	33,573	29,695	27,653	26,654	23,560
18,875	16,747	14,257	13,047	12,102	11,146
18,458	16,826	15,438	14,606	14,552	12,414
25,524	23,246	20,005	18,372	17,340	14,405
11,809	10,327	9,690	9,281	9,314	9,155
1,464,005	1,381,968	1,337,562	1,279,731	1,200,950	1,112,547
1,207,457	1,142,512	1,110,637	1,063,530	989,510	920,223
215,728	199,431	188,553	180,994	176,444	159,929
{ 40,820	{ 40,025	{ 38,372	{ 35,207	{ 34,996	{ 32,395
.....	.....	.....	.....	.....	.....
677,223	622,823	584,760	559,172	521,064	496,591
786,782	759,145	752,802	720,559	679,886	615,956
728,872	699,874	680,717	643,032	610,206	547,928
735,133	682,094	656,845	626,699	590,744	564,619
16,337,804	14,549,099	12,093,445	10,110,459	9,315,277	8,099,192
11,460,974	9,944,422	7,797,480	6,527,103	6,024,312	5,074,120
4,876,830	4,604,677	4,295,965	3,583,356	3,250,965	3,025,072
1,587,761	1,632,614	1,506,002	1,285,540	1,302,317	1,343,501
5,223	5,020	5,354	.....	.....	.....
4,627,667	4,173,349	3,769,323	3,569,527	2,849,450	2,423,845
3,268,350	2,797,055	2,423,244	2,243,318	1,701,793	1,451,498
1,359,317	1,376,294	1,346,079	1,326,209	1,147,657	972,347
3,764,331	3,725,227	2,995,387	2,844,709	2,282,046	1,861,845
2,690,097	2,297,005	1,938,048	1,803,545	1,401,471	1,140,945
1,074,234	1,088,222	1,057,339	1,041,164	880,575	720,900
159,233	145,047	176,865	173,170	168,102	149,572
135,440	121,863	145,828	142,421	136,755	121,832

) Farm service is included with domestic service.  
 ) Includes small power customers in 1929.  
 ) Revised.



TABLE 2 - ELECTRIC POWER PLANTS, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunsw
<u>Total Number of Generating Stations</u> .....	572	11	48	15
Per cent of total for Canada .....	100.00	1.92	8.39	2.62
<u>Commercial</u> .....	402	9	24	10
Hydraulic .....	210	8	13	4
Fuel .....	192	1	11	6
<u>Municipal</u> .....	170	2	24	5
Hydraulic .....	102	..	20	3
Fuel .....	68	2	4	2
With water wheels and turbines .....	312	8	33	7
With steam engines only .....	37	..	1	2
With steam turbines only .....	19	1	7	1
With gas or oil engines only .....	192	2	6	4
With both steam engines and turbines .....	8	..	1	1
With both steam and gas or oil engines .....	4	..	..	..
With alternating current dynamos only .....	428	10	45	10
With direct current dynamos only .....	139	1	3	4
With both alternating and direct current dynamos...	5	..	..	1
<u>Commercial Organizations</u> .....	x 362	8	27	21
Number generating power .....	281	7	14	9
Number buying power for redistribution .....	80	1	13	12
<u>Municipalities</u> .....	x 464	2	29	14
Number generating power .....	82	2	11	4
Number buying power for redistribution .....	381	..	18	10
<u>Auxiliary Plants</u> .....	65	2	7	6
To hydraulic stations .....	41	2	3	..
To non-generating stations .....	24	..	4	6

x - Organizations operating in two or more provinces are not shown under provinces, but are included in total.

TABLE 2 - ELECTRIC POWER PLANTS, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
96	130	28	121	62	61
16.78	22.73	4.90	21.15	10.84	10.67
82	64	14	94	53	52
80	60	4	..	5	36
2	4	10	94	48	16
14	66	14	27	9	9
12	58	3	..	1	5
2	8	11	27	8	4
92	118	7	..	6	41
..	10	4	1	14	5
2	..	..	4	2	2
2	2	15	112	37	12
..	..	1	3	2	..
..	..	1	1	1	1
94	123	21	44	31	50
1	7	6	77	30	10
1	..	1	..	1	1
64	51	16	76	50	48
44	42	11	74	44	36
20	9	5	2	6	12
26	323	16	21	16	16
9	18	10	14	7	7
17	305	6	7	9	9
7	11	8	..	9	15
7	7	3	..	7	12
..	4	5	..	2	3

TABLE 3 - CAPITAL, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	\$	\$	\$	\$
<u>Total Capital</u> .....	1,335,886,987	1,059,558	29,944,161	29,458,115
Per cent of total for Canada .....	100.00	0.08	2.24	2.21
Generation .....	831,300,087	543,267	18,911,360	20,556,663
Transmission .....	210,340,309	...	4,049,286	3,483,786
Distribution .....	219,123,486	415,776	5,123,042	4,023,208
General .....	75,123,105	100,515	1,860,473	1,394,458
<u>Total Capital in Commercial Stations</u> .....	880,013,400	913,464	13,791,180	20,937,748
Generation .....	623,719,405	454,796	5,972,309	16,529,024
Transmission .....	112,974,246	...	2,598,772	1,739,637
Distribution .....	94,919,075	373,189	3,818,652	1,610,681
General .....	48,400,674	85,479	1,401,447	1,058,406
Non-generating stations .....	34,548,964	5,000	2,048,589	2,021,323
Generating stations .....	845,464,436	908,464	11,742,591	18,916,425
Hydraulic stations .....	818,694,202	73,523	3,255,252	15,487,726
Fuel stations .....	26,770,234	834,941	8,487,339	3,428,699
<u>Total Capital in Municipal Stations</u> .....	455,873,587	146,094	16,152,981	8,520,367
Generation .....	207,580,682	88,471	12,939,051	4,027,639
Transmission .....	97,366,063	...	1,450,514	1,744,149
Distribution .....	124,204,411	42,587	1,304,390	2,412,527
General .....	26,722,431	15,036	459,026	336,052
Non-generating stations .....	109,838,456	...	1,229,473	1,488,232
Generating stations .....	346,035,131	146,094	14,923,508	7,032,135
Hydraulic stations .....	325,468,248	...	14,500,668	5,035,104
Fuel stations .....	20,566,883	146,094	422,840	1,997,031
<u>Total Capital in Non-generating Stations</u> ...	144,387,420	5,000	3,278,062	3,509,555
Generation .....	1,804,985	...	284,626	640,586
Transmission .....	6,829,305	...	206,836	232,798
Distribution .....	117,777,323	5,000	2,298,404	2,034,857
General .....	17,975,807	...	488,196	601,314
<u>Total Capital in Generating Stations</u> .....	1,191,499,567	1,054,558	26,666,099	25,948,560
Generation .....	829,495,102	543,267	18,626,734	19,916,077
Transmission .....	203,511,004	...	3,842,450	3,250,988
Distribution .....	101,346,163	410,776	2,824,638	1,988,351
General .....	57,147,298	100,515	1,372,277	793,144
Hydraulic stations .....	1,144,162,450	73,523	17,755,920	20,522,830
Fuel stations .....	47,337,117	981,035	8,910,179	5,425,730
<u>TOTAL CAPITAL</u> .....				
Average per H.P. of primary power .....	211	192	196	225
Average per H.P. including auxiliary equipment .....	205	188	192	215
Average per K.V.A. of dynamo capacity .....	253	215	235	266
Average per K.V.A. including auxiliary equipment .....	246	215	230	256
<u>Generation</u> .....				
Average cost per H.P. (including auxiliary equipment)-				
In all generating stations .....	128	96	122	152
In hydraulic stations .....	130	98	174	156
In fuel stations .....	83	101	61	137



TABLE 3 - CAPITAL, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
\$	\$	\$	\$	\$	\$
574,953,411 43.04	473,717,409 35.46	X 78,330,880 5.86	X 25,543,138 1.91	27,714,695 2.08	95,165,620 7.12
424,716,924	242,313,636	45,010,702	12,459,821	13,226,616	53,561,098
71,294,621	98,926,904	11,211,996	3,988,539	6,602,926	10,782,251
48,653,660	105,298,144	17,433,026	7,677,264	6,932,763	23,566,603
30,288,206	27,178,725	4,675,156	1,417,514	952,390	7,255,668
567,218,230	106,015,990	44,607,882	12,189,939	21,321,399	93,017,568
420,398,499	78,815,507	31,849,546	6,199,217	10,755,278	52,745,229
71,031,710	12,936,684	5,597,420	1,908,603	6,455,462	10,705,958
45,840,386	8,545,531	5,430,012	3,450,419	3,440,648	22,409,557
29,947,635	5,718,268	1,730,904	631,700	670,011	7,156,824
3,182,902	2,225,244	903,883	1,732,009	87,894	22,342,120
564,035,328	103,790,746	43,703,999	10,457,930	21,233,505	70,675,448
563,969,705	103,757,553	43,302,597	...	18,597,072	70,250,774
65,623	33,193	401,402	10,457,930	2,636,433	424,674
7,735,181	367,701,419	33,722,998	13,353,199	6,393,296	2,148,052
4,318,425	163,498,129	13,161,156	6,260,604	2,471,338	815,869
262,911	85,990,220	5,614,576	2,079,936	147,464	76,293
2,813,274	96,752,613	12,003,014	4,226,845	3,492,115	1,157,046
340,571	21,460,457	2,944,252	785,814	282,379	98,844
822,625	96,498,167	4,918,880	1,832,997	2,081,512	966,570
6,912,556	271,203,252	28,804,118	11,520,202	11,311,784	1,181,482
5,369,867	271,038,158	28,219,724	...	237,481	1,067,246
1,542,689	165,094	584,394	11,520,202	4,074,303	114,236
4,005,527	98,723,411	5,822,763	3,565,006	2,169,406	23,308,690
...	121,468	613,438	...	62,505	82,362
1,342,266	444,909	2,267,031	863,284	85,331	1,386,850
2,475,386	86,745,761	2,398,916	2,446,095	1,984,598	17,388,306
187,875	11,411,273	543,378	255,627	36,972	4,451,172
570,947,884	374,993,998	72,508,117	21,978,132	25,545,289	71,856,930
424,716,924	242,192,168	44,397,264	12,459,821	13,164,111	53,478,736
69,952,355	98,481,995	8,944,965	3,125,255	6,517,595	9,325,401
46,178,274	18,552,383	15,034,110	5,231,169	4,448,165	6,118,297
30,100,331	15,767,452	11,131,778	1,161,887	915,418	2,804,496
569,339,572	374,795,711	71,522,321	...	18,834,553	71,318,020
1,608,312	198,287	985,796	21,978,132	6,710,736	538,910
197	253	178	189	215	169
195	248	165	189	184	155
229	312	221	222	264	218
227	305	204	222	223	199
144	127	95	92	88	87
144	127	95	..	111	87
152	126	164	92	52	92

X - Capital invested in one hydraulic station in Saskatchewan included under Manitoba.

TABLE 4 - REVENUE, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	\$	\$	\$	\$
<b>REVENUES</b>				
Revenue from sale of electric energy .....	121,212,679	274,555	4,356,412	3,340,257
For domestic service .....	36,422,073	129,835	1,201,279	971,597
For commercial light .....	20,431,560	76,709	762,822	469,390
For power (small) .....	5,244,595	35,473	376,025	206,925
For power (large) .....	54,261,187	13,743	1,816,776	1,584,442
For street lighting .....	4,853,264	18,795	199,510	107,903
Revenue of Commercial Stations .....	73,124,089	223,592	2,716,904	2,266,942
Non-generating .....	4,973,595	507	461,039	349,858
Generating .....	68,150,494	223,085	2,255,865	1,917,084
Hydraulic .....	63,409,538	19,671	413,178	1,474,217
Fuel .....	4,740,956	203,414	1,842,687	442,867
Revenue of Municipal Stations .....	48,088,590	50,963	1,639,508	1,073,315
Non-generating .....	15,417,372	...	309,578	366,993
Generating .....	32,671,218	50,963	1,329,930	706,322
Hydraulic .....	27,901,466	...	1,204,589	455,405
Fuel .....	4,769,752	50,963	125,341	250,917
Revenue of non-generating stations .....	20,390,967	507	770,617	716,851
Revenue of generating stations .....	100,821,712	274,048	3,585,795	2,623,406
Revenue of hydraulic stations .....	91,311,004	19,671	1,617,767	1,929,622
Revenue of fuel stations .....	9,510,708	254,377	1,968,028	693,784
Average net revenue per H.P. of primary power .....	19.11	49.68	28.57	(x)
Average net revenue per H.P. in main and auxiliary plants	18.57	48.75	27.94	(x)
Average net revenue per K.V.A. of dynamo capacity....	22.96	55.70	34.21	(x)
Average net revenue per K.V.A. in main and auxiliary plants	22.30	55.70	33.53	(x)
Average net revenue per kilowatt hour consumed (cents)	0.75	5.89	1.56	0.77
Average net revenue per domestic service customer ...	26.33	32.64	25.88	27.33
Average net revenue per commercial light customer....	82.22	74.26	86.77	83.39
Average net revenue per small power customer .....	181.21	313.92	216.48	194.66
Average net revenue per large power customer .....	2,634.93	404.21	17,811.53	13,203.68
Average net revenue per kilowatt hour - domestic and farm services .....(cents)	2.22	8.67	5.66	5.05
Average net revenue per kilowatt hour - commercial light .....(cents)	2.66	8.34	5.43	3.80

(x) Affected by power purchased from another province.

TABLE 4 - REVENUE, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
\$	\$	\$	\$	\$	\$
4,720,404	49,952,973	6,534,141	4,478,110	4,681,024	10,082,357
8,210,401	16,170,224	2,873,481	1,802,758	1,714,412	3,348,086
5,615,201	7,568,608	1,362,823	1,186,100	1,163,378	2,226,529
2,306,544	( 424,641	307,981	632,242	735,045	219,719
7,343,982	(23,770,189	1,757,385	559,528	793,487	3,829,209
1,244,276	2,019,311	232,471	297,482	274,702	458,814
3,508,546	9,649,490	3,202,076	1,600,956	2,357,836	9,486,272
321,790	1,091,994	133,160	147,335	46,609	3,523,724
3,186,756	8,557,496	3,068,916	1,453,621	2,311,227	5,962,548
3,172,185	8,550,468	3,010,234	...	1,717,470	5,838,219
14,571	7,028	58,682	1,453,621	593,757	124,329
1,211,858	40,303,483	3,332,065	2,877,154	2,323,188	596,085
220,867	12,186,095	648,831	526,398	881,166	327,294
990,991	28,117,388	2,683,234	2,350,756	1,442,022	268,791
731,604	28,065,009	2,474,326	...	29,277	210,435
59,387	52,379	208,908	2,350,756	1,412,745	58,356
542,657	13,278,089	781,991	673,733	927,775	3,851,018
1,177,747	36,674,884	5,752,150	3,804,377	3,753,249	6,231,339
3,903,789	36,615,477	5,484,560	...	1,746,747	6,048,654
273,958	59,407	267,590	3,804,377	2,006,502	182,685
15.33	(x)	14.84	33.06	(x)	17.93
15.18	(x)	13.80	33.06	(x)	16.46
17.84	(x)	18.42	38.93	(x)	23.14
17.65	(x)	17.00	38.93	(x)	21.10
0.53	0.85	0.60	3.30	2.38	0.86
21.31	27.63	39.93	40.10	29.84	26.45
75.80	85.03	83.81	84.36	71.23	95.56
198.55	133.37	114.49	219.60	190.48	122.07
832.34	1,722.23	764.41	6,907.75	2,601.60	1,230.24
3.43	1.77	1.06	4.99	5.75	3.04
3.23	2.09	1.54	6.36	4.32	3.06



TABLE 5 - EXPENSES, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	\$	\$	\$	\$
<u>Total Expenses</u> .....	74,306,251	103,352	2,455,330	1,566,355
Per cent of total for Canada .....	100.00	0.14	3.30	2.11
Salaries and wages .....	23,261,166	55,465	887,689	519,070
Fuel .....	1,833,515	46,981	410,067	161,721
Taxes .....	6,001,121	312	221,237	77,622
Cost of power .....	43,210,449	594	936,337	807,942
<u>Total for Commercial Stations</u> .....	30,349,320	87,058	1,835,908	795,981
Salaries and wages .....	10,217,265	47,070	567,743	285,619
Fuel .....	942,234	39,082	383,591	88,021
Taxes .....	5,484,511	312	217,949	77,147
Cost of power .....	13,705,310	594	666,625	345,194
Non-generating stations .....	5,627,165	594	487,110	495,765
Generating stations .....	24,722,155	86,464	1,348,798	300,216
Hydraulic stations .....	22,056,947	7,166	118,526	82,084
Fuel stations .....	2,665,208	79,298	1,230,272	218,132
<u>Total for Municipal Stations</u> .....	43,956,931	16,294	619,422	770,374
Salaries and wages .....	13,043,901	8,395	319,946	233,451
Fuel .....	891,281	7,899	26,476	73,700
Taxes .....	516,610	...	3,288	475
Cost of power .....	29,505,139	...	269,712	462,748
Non-generating stations .....	23,416,929	...	356,700	413,913
Generating stations .....	15,540,002	16,294	262,722	356,461
Hydraulic stations .....	13,373,421	...	199,849	253,720
Fuel stations .....	2,166,581	16,294	62,873	102,741
<u>Total Expenses for Non-generating Stations...</u>	34,044,094	594	843,810	909,678
Salaries and wages .....	7,637,900	...	217,874	241,421
Fuel .....	15,649	...	2,469	1,578
Taxes .....	639,027	...	51,359	37,062
Cost of power .....	25,751,518	594	572,108	629,617
<u>Total Expenses for Generating Stations</u> .....	40,262,157	102,758	1,611,520	656,677
Salaries and wages .....	15,623,266	55,465	669,815	277,649
Fuel .....	1,817,866	46,981	407,598	160,143
Taxes .....	5,362,094	312	169,878	40,560
Cost of power .....	17,458,931	...	364,229	178,325
Hydraulic stations .....	35,430,368	7,166	318,375	335,804
Fuel stations .....	4,831,789	95,592	1,293,145	320,873

TABLE 5 - EXPENSES, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
\$	\$	\$	\$	\$	\$
4,229,502	41,314,864	3,392,729	2,724,718	2,143,929	6,375,472
19.15	55.60	4.56	3.67	2.89	8.58
4,875,614	11,390,547	1,667,848	901,873	935,897	2,027,163
25,256	11,582	80,234	855,070	192,512	50,092
3,094,915	1,294,491	212,592	133,374	168,204	798,374
6,233,717	28,618,244	1,432,055	834,401	847,316	3,499,843
3,686,380	4,817,964	1,547,853	835,325	714,831	6,028,020
4,625,974	1,460,341	549,567	337,328	441,721	1,901,902
3,014	3,754	17,845	298,042	75,318	33,567
3,083,265	1,002,198	132,142	86,121	87,003	798,374
5,974,127	2,351,671	848,299	113,834	110,789	3,294,177
225,379	1,165,756	213,706	99,721	34,296	2,904,838
3,461,001	3,652,208	1,334,147	735,604	680,535	3,123,182
3,455,446	3,648,932	1,291,772	...	386,800	3,066,221
5,555	3,276	42,375	735,604	293,735	56,961
543,122	36,496,900	1,844,876	1,889,393	1,429,098	347,452
249,640	9,930,206	1,118,281	564,545	494,176	125,261
22,242	7,828	62,389	557,028	117,194	16,525
11,650	292,293	80,450	47,253	81,201	...
259,590	26,266,573	583,756	720,567	736,527	205,666
207,756	25,137,540	367,812	815,051	865,357	252,800
335,366	11,359,360	1,477,064	1,074,342	563,741	94,652
126,053	11,344,901	1,377,893	...	7,894	63,111
209,313	14,459	99,171	1,074,342	555,847	31,541
433,135	26,303,296	581,518	914,772	899,653	3,157,638
127,239	5,521,279	215,541	110,496	206,519	997,531
...	...	10,785	...	...	817
4,416	123,673	13,651	50,430	62,205	296,231
301,480	20,658,344	341,541	753,846	630,925	1,863,059
3,796,367	15,011,568	2,811,211	1,809,946	1,244,276	3,217,834
4,748,375	5,869,268	1,452,307	791,377	729,378	1,029,632
25,256	11,582	69,449	855,070	192,512	49,275
3,090,499	1,170,512	198,941	82,944	105,999	502,143
5,932,237	7,959,900	1,090,514	80,555	216,387	1,636,784
3,581,499	14,993,833	2,669,665	...	394,694	3,129,332
214,868	17,735	141,546	1,809,946	849,582	88,502

TABLE 6 - EMPLOYEES, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Number of Persons employed</u> .....	15,395	47	725	457
Per cent of total for Canada .....	100.00	0.31	4.71	2.97
Officers, clerks, other salaried employees, etc. ....	6,636	19	257	230
Employees on wages .....	8,759	28	468	227
<u>Total Employees in Commercial Stations</u> .....	7,249	39	455	257
Officers, clerks, other salaried employees, etc. ....	2,931	16	178	100
Employees on wages .....	4,318	23	277	157
Non-generating .....	957	...	121	120
Generating .....	6,292	39	334	137
Hydraulic .....	5,501	7	87	43
Fuel .....	791	32	247	94
<u>Total Employees in Municipal Stations</u> .....	8,146	8	270	200
Officers, clerks, other salaried employees, etc. ....	3,705	3	79	130
Employees on wages .....	4,441	5	191	70
Non-generating .....	4,191	...	78	90
Generating .....	3,955	8	192	110
Hydraulic .....	3,282	...	167	92
Fuel .....	673	8	25	18
<u>Total Employees in Non-generating Stations</u> ..	5,148	...	199	210
Officers, clerks, other salaried employees, etc. ....	2,568	...	91	108
Employees on wages .....	2,580	...	108	102
<u>Total Employees in Generating Stations</u> .....	10,247	47	526	247
Officers, clerks, other salaried employees, etc. ....	4,068	19	166	122
Employees on wages .....	6,179	28	360	125
Hydraulic .....	8,783	7	254	135
Fuel .....	1,464	40	272	112



TABLE 6 - EMPLOYEES, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,471	6,916	1,161	627	668	1,323
22.55	44.92	7.54	4.07	4.34	8.59
1,356	3,113	514	249	304	594
2,115	3,803	647	378	364	729
3,275	1,023	386	253	337	1,224
1,276	358	169	129	167	538
1,999	665	217	124	170	686
77	32	10	15	6	576
3,198	991	376	238	331	648
3,195	988	355	...	202	624
3	3	21	238	129	24
196	5,893	775	374	331	99
80	2,755	345	120	137	56
116	3,138	430	254	194	43
38	3,565	182	58	136	44
158	2,328	593	316	195	55
96	2,320	550	...	13	44
62	8	43	316	182	11
115	3,597	192	73	142	620
45	1,778	43	37	77	389
70	1,819	149	36	65	231
3,356	3,319	969	554	526	703
1,311	1,335	471	212	227	205
2,045	1,084	498	342	299	498
3,291	3,308	905	...	215	668
65	11	64	554	311	35

TABLE 7 - NUMBER OF CUSTOMERS, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Number of Customers</u> .....	1,657,454	5,168	57,135	42,392
Per cent of total for Canada .....	100.00	0.31	3.45	2.56
Domestic service .....	1,357,462	3,978	46,421	35,543
Commercial light .....	248,487	1,033	8,791	5,629
Power (small) .....	28,942	113	1,737	1,063
Power (large) .....	20,593	34	102	120
Street lighting .....	1,970	10	84	37
<u>Total Number of Customers of Commercial Stations</u> ....	776,400	4,150	38,600	21,090
Domestic service .....	620,843	3,269	31,285	16,801
Commercial light .....	130,859	760	6,160	3,539
Power (small) .....	18,443	79	1,042	680
Power (large) .....	5,063	34	59	51
Street lighting .....	1,192	8	54	19
Non-generating .....	152,167	47	17,392	13,242
Generating .....	624,233	4,103	21,208	7,848
Hydraulic .....	563,189	719	4,922	269
Fuel .....	61,044	3,384	16,286	7,579
<u>Total Number of Customers of Municipal Stations</u> .....	881,054	1,018	18,535	21,302
Domestic service .....	736,619	709	15,136	18,742
Commercial light .....	117,628	273	2,631	2,090
Power (small) .....	10,499	34	695	383
Power (large) .....	15,530	...	43	69
Street lighting .....	778	2	30	18
Non-generating .....	658,867	...	13,089	13,572
Generating .....	222,187	1,018	5,446	7,730
Hydraulic .....	155,511	...	2,574	6,648
Fuel .....	66,676	1,018	2,872	1,082
<u>Total Number of Customers of Non-generating Stations</u> .....	811,034	47	30,481	26,814
Domestic service .....	673,986	37	25,126	22,253
Commercial light .....	114,661	3	4,551	3,820
Power (small) .....	5,723	6	735	651
Power (large) .....	16,081	...	32	66
Street lighting .....	583	1	37	24
<u>Total Number of Customers of Generating Stations</u> ....	846,420	5,121	26,654	15,578
<u>Hydraulic Stations</u> .....	718,700	719	7,496	6,917
Domestic service .....	588,607	619	6,139	6,459
Commercial light .....	107,138	97	1,057	370
Power (small) .....	17,811	...	220	53
Power (large) .....	4,122	..	45	27
Street lighting .....	1,022	3	35	8
<u>Fuel Stations</u> .....	127,720	4,402	19,158	8,661
Domestic service .....	94,869	3,322	15,156	6,831
Commercial light .....	26,688	933	3,183	1,439
Power (small) .....	5,408	107	782	359
Power (large) .....	390	34	25	27
Street lighting .....	365	6	12	5
<u>Average number of domestic service customers per</u>				
100 of population .....	12.92	4.52	9.05	8.69

X - Large power customers for Ontario include both large and small customers in municipalities served by Provincial Commission.

TABLE 7 - NUMBER OF CUSTOMERS, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
472,446 28.50	691,867 41.74	93,283 5.63	62,261 3.76	78,138 4.71	154,764 9.34
385,211 74,075	585,343 89,007	71,954 16,260	44,952 14,060	57,459 16,332	126,601 23,300
11,617 859 684	3,184 13,802 531	2,690 2,299 80	2,879 81 289	3,859 305 183	1,800 2,991 72
441,248	58,006	27,651	23,097	25,293	137,265
358,663 70,279	46,719 9,291	19,867 6,485	15,823 6,275	15,712 7,586	112,704 20,484
10,849 804 653	1,701 232 63	432 845 22	815 33 151	1,766 63 166	1,079 2,942 56
10,615 430,633 430,408 225	2,098 55,908 55,694 214	5,545 22,106 21,070 1,036	2,754 20,343 ... 20,343	1,206 24,087 14,238 9,849	99,268 37,997 35,869 2,128
31,198 26,548 3,796	633,861 538,624 79,716	65,632 52,087 9,775	39,164 29,129 7,785	52,845 41,747 8,746	17,499 13,897 2,816
768 55 31	1,483 13,570 468	2,258 1,454 58	2,064 48 138	2,093 242 17	721 49 16
11,969 19,229 14,701 4,528	555,842 78,019 77,276 743	12,171 53,461 49,899 3,562	14,530 24,634 ... 24,634	24,939 27,906 753 27,153	12,755 4,744 3,560 1,084
22,584 19,263 2,725	557,940 466,838 77,104	17,716 13,478 3,445	17,284 12,781 3,465	26,145 21,652 3,471	112,023 92,558 16,077
508 19 69	672 13,021 305	660 86 47	954 29 55	965 46 13	574 2,752 32
449,862 445,109 361,772 70,979	133,927 132,970 117,677 11,792	75,567 70,969 55,218 11,746	44,977 ... ... ...	51,993 14,991 9,112 4,533	42,741 39,529 37,611 6,564
10,914 832 612	2,498 779 224	1,785 2,208 12	... ... ...	1,222 27 97	1,119 204 31
4,753 4,176 371	957 828 111	4,598 3,258 1,069	44,977 32,171 10,595	37,002 26,695 8,328	3,212 2,432 659
195 8 3	14 2 2	245 5 21	1,925 52 234	1,674 232 73	107 5 9
13.26	16.92	10.21	4.63	7.76	17.88



TABLE 8 - POLE LINE MILEAGE, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
Pole Line Mileage .....	53,845	193	2,409	1,727
Per cent of total for Canada .....	100.00	0.36	4.47	3.21
For transmission .....	20,627	...	592	473
For distribution .....	33,218	193	1,817	1,254
<b>Total Pole Line Mileage-</b>				
Commercial Stations .....	25,010	175	1,462	618
Non-generating .....	4,221	7	545	244
Generating .....	20,789	168	917	374
Hydraulic .....	18,287	59	617	153
Fuel .....	2,502	109	300	221
Municipal Stations .....	28,835	18	947	1,109
Non-generating .....	8,949	...	343	224
Generating .....	19,886	18	604	885
Hydraulic .....	17,435	...	553	687
Fuel .....	2,451	18	51	198
<b>Total Pole Line Mileage-</b>				
Non-generating Stations .....	13,170	7	888	468
<b>Total Pole Line Mileage-</b>				
Generating Stations .....	40,675	186	1,521	1,259
Hydraulic .....	35,722	59	1,170	840
Fuel .....	4,953	127	351	419

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1932

<b>Total Primary Power</b> .....	H.P.	184,879	105	3,443	6,125
Per cent of total for Canada .....		100.00	0.06	1.86	3.31
Steam reciprocating engines .....	No.	44	1	7	8
Total capacity .....	H.P.	18,184	75	2,188	1,950
Steam turbines .....	No.	44	...	1	4
Total capacity .....	H.P.	157,871	...	670	3,600
Gas and oil engines .....	No.	50	1	5	3
Total capacity .....	H.P.	8,824	30	585	575
<b>Total Secondary Power</b> .....	K.V.A.	157,077	...	2,587	4,453
<b>Commercial Stations</b>					
<b>Total Primary Power</b> .....	H.P.	127,030	105	2,600	5,225
Steam reciprocating engines .....	No.	28	1	5	6
Total capacity .....	H.P.	11,055	75	1,765	1,575
Steam turbines .....	No.	35	...	1	4
Total capacity .....	H.P.	110,681	...	670	3,600
Gas and oil engines .....	No.	27	1	1	1
Total capacity .....	H.P.	5,294	30	165	50
<b>Total Secondary Power</b> .....	K.V.A.	108,845	...	1,926	3,856
<b>Municipal Stations</b>					
<b>Total Primary Power</b> .....	H.P.	57,849	...	843	900
Steam reciprocating engines .....	No.	16	...	2	2
Total capacity .....	H.P.	7,129	...	423	375
Steam turbines .....	No.	9	...	...	...
Total capacity .....	H.P.	47,190	...	...	...
Gas and oil engines .....	No.	23	...	4	2
Total capacity .....	H.P.	3,530	...	420	525
<b>Total Secondary Power</b> .....	K.V.A.	48,232	...	661	597

TABLE 8 - POLE LINE MILEAGE, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
11,137	23,346	3,274	3,441	3,765	4,553
20,68	43,36	6,08	6,39	6,99	8,46
4,889	7,007	1,793	2,340	2,241	1,292
6,248	16,339	1,481	1,101	1,524	3,261
10,706	2,238	1,182	1,582	3,006	4,041
586	133	192	648	33	1,833
10,120	2,105	990	934	2,973	2,208
10,109	2,098	919	...	2,224	2,108
11	7	71	934	749	100
431	21,108	2,092	1,859	759	512
149	6,023	1,300	180	370	360
282	15,085	792	1,679	389	152
251	15,062	735	...	16	131
31	23	57	1,679	373	21
735	6,156	1,492	828	403	2,193
10,402	17,190	1,782	2,613	3,362	2,360
10,360	17,160	1,654	...	2,240	2,239
42	30	128	2,613	1,122	121

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1932

29,573	40,321	33,091	...	22,070	50,151
16,00	21,80	17,90	...	11,94	27,13
4	8	3	...	10	3
2,750	2,600	3,206	...	4,440	975
6	6	7	...	5	15
25,500	36,500	28,840	...	16,250	46,511
4	6	11	...	7	13
1,323	1,221	1,045	...	1,380	2,665
25,797	33,642	29,363	...	19,168	42,060
29,573	7,521	12,000	...	21,130	48,876
4	2	...	...	9	1
2,750	450	...	...	3,990	450
6	2	3	...	5	14
25,500	6,300	12,000	...	16,250	46,361
4	4	...	...	4	12
1,323	771	...	...	890	2,065
25,797	6,609	11,250	...	18,390	41,017
...	32,800	21,091	...	940	1,273
...	6	3	...	1	2
...	2,150	3,206	...	450	528
...	4	4	...	...	1
...	30,200	16,840	...	...	150
...	2	11	...	3	1
...	450	1,045	...	490	600
...	27,040	18,113	...	778	1,043

TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Primary Power</u> ..... H.P.	6,528,533	5,632	155,901	136,970
Per cent of total for Canada .....	100.00	0.09	2.39	2.10
<u>Water wheels and turbines</u> ..... No.	808	9	55	16
Total capacity ..... H.P.	6,036,259	464	81,616	105,485
<u>Steam reciprocating engines</u> ..... No.	102	1	10	13
Total capacity ..... H.P.	32,124	75	4,063	5,015
<u>Steam turbines</u> ..... No.	111	3	18	9
Total capacity ..... H.P.	424,550	4,173	69,038	25,300
<u>Gas and oil engines</u> ..... No.	377	6	17	9
Total capacity ..... H.P.	35,600	920	1,184	1,170
<u>Total Dynamo Capacity</u> ..... K.V.A.	5,435,281	4,929	129,914	115,229
Per cent of total for Canada .....	100.00	0.09	2.39	2.12
<u>Dynamos, A.C.</u> ..... No.	1,164	15	94	40
Total capacity ..... K.V.A.	5,428,016	4,921	129,524	114,101
<u>Dynamos, D.C.</u> ..... No.	212	1	6	7
Total capacity ..... K.W.	7,265	8	390	1,128
<u>Commercial Stations</u>				
<u>Total Primary Power</u> ..... H.P.	4,704,523	4,742	85,495	114,835
<u>Water wheels and turbines</u> ..... No.	549	9	19	10
Total capacity ..... H.P.	4,426,235	464	15,106	92,650
<u>Steam reciprocating engines</u> ..... No.	60	1	8	11
Total capacity ..... H.P.	18,910	75	3,640	4,640
<u>Steam turbines</u> ..... No.	69	3	15	7
Total capacity ..... H.P.	238,309	4,173	66,380	17,300
<u>Gas and oil engines</u> ..... No.	279	1	7	5
Total capacity ..... H.P.	21,069	30	369	245
<u>Total Dynamo Capacity</u> ..... K.V.A.	3,958,854	4,164	71,692	97,779
<u>Dynamos, A.C.</u> ..... No.	750	10	43	26
Total capacity ..... K.V.A.	3,953,596	4,156	71,302	96,651
<u>Dynamos, D.C.</u> ..... No.	190	1	6	7
Total capacity ..... K.W.	5,258	8	390	1,128
<u>Municipal Stations</u>				
<u>Total Primary Power</u> ..... H.P.	1,824,010	890	70,406	22,135
<u>Water wheels and turbines</u> ..... No.	259	...	36	6
Total capacity ..... H.P.	1,610,024	...	66,510	12,835
<u>Steam reciprocating engines</u> ..... No.	42	...	2	2
Total capacity ..... H.P.	13,214	...	423	375
<u>Steam turbines</u> ..... No.	42	...	3	2
Total capacity ..... H.P.	186,241	...	2,658	8,000
<u>Gas and oil engines</u> ..... No.	98	5	10	4
Total capacity ..... H.P.	14,531	890	815	925
<u>Total Dynamo Capacity</u> ..... K.V.A.	1,476,427	765	58,222	17,450
<u>Dynamos, A.C.</u> ..... No.	414	5	51	14
Total capacity ..... K.V.A.	1,474,420	765	58,222	17,450
<u>Dynamos, D.C.</u> ..... No.	22	...	...	...
Total capacity ..... K.W.	2,007	...	...	...



TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
2,946,846 45.14	1,910,820 29.27	473,411 7.25	135,454 2.07	150,969 2.31	612,530 9.38
261 2,912,967 4 2,750 9 29,646 6 1,483	335 1,869,401 18 3,168 6 36,500 9 1,751	40 436,925 11 4,341 8 29,240 42 2,905	... ... 6 2,543 23 115,162 186 17,749	18 69,520 29 8,694 18 68,300 58 4,455	74 559,881 10 1,475 17 47,191 34 3,983
2,533,177 46.60 280 2,532,657 2 520	1,551,012 28.54 348 1,550,343 9 669	384,158 7.07 84 383,859 14 299	115,017 2.12 104 113,811 108 1,206	124,073 2.28 82 121,414 47 2,659	477,772 8.79 117 477,386 18 386
2,914,070 238 2,884,332 4 2,750 7 25,625 5 1,363	514,906 171 507,212 6 623 2 6,300 4 771	320,506 21 307,800 1 30 3 12,000 17 676	49,965 ... ... 3 1,193 9 37,940 147 10,832	99,319 16 68,560 22 5,399 7 21,550 52 3,810	600,685 65 550,111 4 560 16 47,041 31 2,973
2,506,283 253 2,505,763 2 520	435,748 171 435,557 7 195	253,906 33 253,857 6 49	40,951 59 39,878 98 1,073	79,031 57 77,522 45 1,509	469,300 98 468,914 18 386
32,776 23 28,635 ... ... 2 4,021 1 120	1,395,914 164 1,362,189 12 2,545 4 30,200 5 980	152,905 19 129,125 10 4,311 5 17,240 25 2,229	85,489 ... ... 3 1,350 14 77,222 39 6,917	51,650 2 960 7 3,295 11 46,750 6 645	11,845 9 9,770 6 915 1 150 3 1,010
26,894 27 26,894 ... ...	1,115,264 177 1,114,790 2 474	130,252 51 130,002 8 250	74,066 45 73,933 10 133	45,042 25 43,892 2 1,150	8,472 19 8,472 ... ...

TABLE 11 - MAIN PLANT EQUIPMENT, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Primary Power</u> .....H.P.	6,343,654	5,527	152,458	130,845
Per cent of total for Canada .....	100.00	0.09	2.40	2.06
Water wheels and turbines .....No.	808	9	55	16
Total capacity .....H.P.	6,036,259	464	81,616	105,485
Steam reciprocating engines ..... No.	58	...	3	5
Total capacity .....H.P.	13,940	...	1,875	3,065
Steam turbines ..... No.	67	3	17	5
Total capacity .....H.P.	266,679	4,173	68,368	21,700
Gas and oil engines ..... No.	327	5	12	6
Total capacity .....H.P.	26,776	890	599	595
<u>Total Dynamo Capacity</u> ..... K.V.A.	5,278,204	4,929	127,327	110,776
Per cent of total for Canada .....	100.00	0.09	2.41	2.10
Dynamos, A.C. ....No.	1,045	15	82	26
Total capacity .....K.V.A.	5,273,065	4,921	127,237	109,881
Dynamos, D.C. ....No.	203	1	5	6
Total capacity .....K.W.	5,139	8	90	895
<u>Commercial Stations</u>				
<u>Total Primary Power</u> .....H.P.	4,577,493	4,637	82,895	109,610
Per cent of total for Canada .....	100.00	0.10	1.81	2.40
Water wheels and turbines ..... No.	549	9	19	10
Total capacity .....H.P.	4,426,235	464	15,106	92,650
Steam reciprocating engines ..... No.	32	...	3	5
Total capacity .....H.P.	7,855	...	1,875	3,065
Steam turbines ..... No.	34	3	14	3
Total capacity .....H.P.	127,628	4,173	65,710	13,700
Gas and oil engines ..... No.	252	...	6	4
Total capacity .....H.P.	15,775	...	204	195
<u>Total Dynamo Capacity</u> ..... K.V.A.	3,850,009	4,164	69,766	93,983
Per cent of total for Canada .....	100.00	0.11	1.81	2.44
Dynamos, A.C. ....No.	673	10	37	16
Total capacity .....K.V.A.	3,846,397	4,156	69,676	93,028
Dynamos, D.C. ....No.	184	1	5	6
Total capacity .....K.W.	3,612	8	90	895
<u>Municipal Stations</u>				
<u>Total Primary Power</u> .....H.P.	1,766,161	890	69,563	21,235
Per cent of total for Canada .....	100.00	0.05	3.94	1.20
Water wheels and turbines .....No.	259	...	36	6
Total capacity .....H.P.	1,610,024	...	66,510	12,835
Steam reciprocating engines ..... No.	26	...	...	...
Total capacity .....H.P.	6,085	...	...	...
Steam turbines ..... No.	33	...	3	2
Total capacity .....H.P.	139,051	...	2,658	8,000
Gas and oil engines ..... No.	75	5	6	2
Total capacity .....H.P.	11,001	890	395	400
<u>Total Dynamo Capacity</u> .....K.V.A.	1,428,195	765	57,561	16,853
Per cent of total for Canada .....	100.00	0.05	4.03	1.18
Dynamos, A.C. ....No.	372	5	45	10
Total capacity .....K.V.A.	1,426,668	765	57,561	16,853
Dynamos, D.C. ....No.	19	...	...	...
Total capacity .....K.W.	1,527	...	...	...
<u>Hydraulic Stations</u>				
<u>Total Dynamo Capacity</u> ..... K.V.A.	5,018,546	414	68,017	91,163
Per cent of total for Canada .....	100.00	0.01	1.35	1.82
Dynamos, A.C. ....No.	792	7	55	15
Total capacity .....K.V.A.	5,017,738	406	68,017	91,038
Dynamos, D.C. ....No.	10	1	...	1
Total capacity .....K.W.	808	8	...	125
<u>Fuel Stations</u>				
<u>Total Dynamo Capacity</u> ..... K.V.A.	259,658	4,515	59,310	19,613
Per cent of total for Canada .....	100.00	1.74	22.84	7.55
Dynamos, A.C. ....No.	253	8	27	11
Total capacity .....K.V.A.	255,327	4,515	59,220	18,843
Dynamos, D.C. ....No.	193	...	5	5
Total capacity .....K.W.	4,331	...	90	770

TABLE 11 - MAIN PLANT EQUIPMENT, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
2,917,273 45.99	1,870,499 29.49	x 440,320 6.94	x 135,454 2.13	128,899 2.03	562,379 8.87
261 2,912,967	335 1,869,401	40 436,925	... ...	18 69,520	74 559,851
... ...	10 568	8 1,135	6 2,543	19 4,254	7 500
3 4,146	... ...	1 400	23 115,162	13 52,050	2 680
2 160	3 530	31 1,860	186 17,749	61 3,075	21 1,318
2,507,380 47.50	1,517,363 28.75	354,795 6.72	115,017 2.18	104,905 1.99	435,712 8.26
268 2,506,860	333 1,517,144	66 354,526	104 113,811	61 103,346	90 435,339
2 520	8 219	12 269	108 1,206	45 1,559	16 373
2,884,497 63.02	507,385 11.08	308,506 6.74	49,965 1.09	78,189 1.71	551,809 12.05
238 2,884,332	171 507,212	21 307,800	... ...	16 68,560	65 550,111
... ...	4 173	1 30	3 1,193	13 1,409	3 110
1 125	... ...	... ...	9 37,940	2 5,300	2 680
1 40	... ...	17 676	147 10,832	58 2,980	19 908
2,480,486 64.43	429,139 11.15	242,656 6.30	40,951 1.06	60,641 1.58	428,283 11.12
241 2,479,966	164 428,944	30 242,607	59 39,878	41 60,232	75 427,910
2 520	7 195	6 49	98 1,073	43 409	16 373
32,776 1.86	1,363,114 77.18	131,814 7.46	85,489 4.84	50,710 2.37	10,570 0.60
23 28,635	164 1,362,189	19 129,125	... ...	2 960	9 9,770
... ...	6 395	7 1,105	3 1,350	6 2,845	4 390
2 4,021	... ...	1 400	14 77,222	11 46,750	... ...
1 120	3 530	14 1,184	39 6,917	3 155	2 410
26,894 1.88	1,088,224 76.20	112,139 7.85	74,066 5.19	44,284 3.10	7,429 0.52
27 26,894	169 1,088,200	36 111,919	45 73,933	20 43,114	15 7,429
... ...	1 24	6 220	10 133	2 1,150	... ...
2,503,385 49.88	1,516,534 30.22	351,912 7.01	... ...	53,200 1.06	433,921 8.65
263 2,502,865	324 1,516,449	40 351,912	... ...	14 53,200	74 433,851
2 520	4 85	... ...	... ...	... ...	2 70
3,995 1.54	829 0.32	2,883 1.11	115,017 44.30	51,705 19.91	1,771 0.69
5 3,995	9 695	26 2,614	104 113,811	47 50,146	16 1,488
... ...	4 134	12 269	108 1,206	45 1,559	14 303

x - Capacity of one hydraulic station in Saskatchewan included under Manitoba.



TABLE 12 - MAIN PLANT EQUIPMENT CLASSIFIED, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>Primary Power</b> ..... H.P.	6,343,654	5,527	152,458	130,245	2,917,273
<u>Water wheels and turbines</u> ..... No.	808	9	55	16	261
..... Total H.P.	6,036,259	464	81,616	105,485	2,912,967
Under 500 H.P. .... No.	158	9	24	3	25
..... Total H.P.	30,755	464	5,416	935	4,458
500 - 2,000 H.P. .... No.	216	...	17	2	73
..... Total H.P.	243,829	...	19,860	2,050	81,609
2,000 - 5,000 H.P. .... No.	125	...	10	6	35
..... Total H.P.	371,525	...	33,040	17,500	100,950
5,000 - 10,000 H.P. .... No.	106	...	4	1	36
..... Total H.P.	696,450	...	23,300	5,000	249,450
10,000 - 15,000 H.P. .... No.	76	...	...	...	28
..... Total H.P.	881,300	...	...	...	302,100
15,000 - 25,000 H.P. .... No.	56	...	...	4	17
..... Total H.P.	1,030,500	...	...	80,000	352,500
25,000 and up ..... No.	71	...	...	...	47
..... Total H.P.	2,781,900	...	...	...	1,821,900
<u>Steam reciprocating engines</u> ..... No.	58	...	3	5	...
..... Total H.P.	13,940	...	1,875	3,065	...
Under 500 H.P. .... No.	48	...	1	2	...
..... Total H.P.	5,080	...	75	165	...
500 H.P. and up ..... No.	10	...	2	3	...
..... Total H.P.	8,860	...	1,800	2,900	...
<u>Steam turbines</u> ..... No.	67	3	17	5	3
..... Total H.P.	266,679	4,173	68,368	21,700	4,146
Under 500 H.P. .... No.	5	...	1	...	1
..... Total H.P.	1,507	...	402	...	125
500 - 2,000 H.P. .... No.	17	2	4	1	1
..... Total H.P.	18,237	2,173	4,846	700	1,340
2,000 - 5,000 H.P. .... No.	29	1	7	3	1
..... Total H.P.	87,661	2,000	21,420	11,000	2,681
5,000 - 10,000 and up ..... No.	16	...	5	1	...
..... Total H.P.	159,274	...	41,700	10,000	...
<u>Gas and oil engines</u> ..... No.	327	5	12	6	2
..... Total H.P.	26,776	890	599	595	160
<b>Secondary Power</b> .....					
<u>Dynamos, A.C. and D.C.</u> ..... No.	1,248	16	87	32	270
..... Total K.V.A.	5,278,204	4,929	127,327	110,776	2,507,380
<u>Dynamos, A.C.</u> ..... No.	1,045	15	82	26	268
..... Total K.V.A.	5,273,065	4,921	127,237	109,881	2,506,860
Under 50 K.V.A. .... No.	65	4	6	...	5
..... Total K.V.A.	1,988	133	226	...	175
50 - 200 K.V.A. .... No.	163	7	15	5	15
..... Total K.V.A.	18,035	738	1,458	656	1,639
200 - 500 K.V.A. .... No.	123	1	14	1	20
..... Total K.V.A.	38,279	300	4,413	375	6,922
500 - 1,000 K.V.A. .... No.	141	1	11	4	44
..... Total K.V.A.	104,427	625	7,905	2,875	34,040
1,000 - 5,000 K.V.A. .... No.	267	2	30	11	66
..... Total K.V.A.	615,790	3,125	73,560	28,475	147,420
5,000 - 10,000 K.V.A. .... No.	109	...	6	1	23
..... Total K.V.A.	753,367	...	39,675	7,500	146,900
10,000 - 15,000 K.V.A. .... No.	68	...	...	...	31
..... Total K.V.A.	732,165	...	...	...	318,000
15,000 - 25,000 K.V.A. .... No.	54	...	...	4	20
..... Total K.V.A.	1,019,500	...	...	70,000	403,250
25,000 and up ..... No.	55	...	...	...	44
..... Total K.V.A.	1,989,514	...	...	...	1,448,514
<u>Dynamos, D.C.</u> ..... No.	203	1	5	6	2
..... Total K.W.	5,139	8	90	895	520
Under 50 K.W. .... No.	190	1	4	3	1
..... Total K.W.	2,219	8	40	45	20
50 - 200 K.W. .... No.	9	...	1	2	...
..... Total K.W.	620	...	50	200	...
200 - 500 K.W. .... No.	1	...	...	...	...
..... Total K.W.	400	...	...	...	...
500 and up ..... No.	3	...	...	1	1
..... Total K.W.	1,900	...	...	650	500

TABLE 12 - MAIN PLANT EQUIPMENT CLASSIFIED, 1932

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal
1,870,499	440,320	135,454	128,899	562,379	4,577,493	1,766,161
335	40	...	18	74	549	259
1,869,401	436,925	...	69,520	559,881	4,426,235	1,610,024
68	1	...	10	18	106	52
14,026	125	...	1,920	3,411	18,266	12,489
115	...	...	...	9	127	89
129,040	...	...	...	11,270	140,144	103,685
56	4	...	2	12	90	35
163,035	12,800	...	8,000	36,200	271,475	100,050
29	21	...	4	11	74	32
186,100	130,000	...	23,600	79,000	500,350	196,100
35	5	...	...	8	57	15
415,700	66,000	...	...	97,500	645,100	236,200
18	3	...	2	12	38	18
289,500	60,000	...	36,000	212,500	741,000	289,500
14	6	...	...	4	57	14
672,000	168,000	...	...	120,000	2,109,900	672,000
10	8	6	19	7	32	26
568	1,135	2,543	4,254	500	7,855	6,085
10	8	4	16	7	26	22
568	1,135	693	1,944	500	2,055	3,025
...	...	2	3	...	6	4
...	...	1,850	2,310	...	5,800	3,060
...	1	23	13	2	34	33
...	400	115,162	52,050	680	127,628	139,051
...	1	1	...	1	2	3
...	400	400	...	180	305	1,202
...	...	6	2	1	9	8
...	...	6,678	2,000	500	9,471	8,766
...	...	9	8	...	15	14
...	...	26,210	24,350	...	42,886	44,775
...	...	7	3	...	8	8
...	...	81,874	25,700	...	74,966	84,308
3	31	186	61	21	252	75
530	1,860	17,749	3,075	1,318	15,775	11,001
341	78	212	106	106	857	391
1,517,363	354,795	115,017	104,905	435,712	3,850,009	1,428,195
333	66	104	61	90	673	372
1,517,144	354,526	113,811	103,346	435,339	3,846,397	1,426,668
7	10	17	9	7	41	24
198	265	596	215	180	1,255	733
32	12	38	19	20	103	60
3,888	1,104	4,468	1,843	2,241	10,883	7,152
41	5	22	11	8	60	63
12,501	1,557	6,781	3,075	2,355	18,040	20,239
65	...	7	3	6	61	54
48,140	...	4,466	2,088	4,288	64,170	40,295
99	14	13	14	18	175	92
201,785	46,350	28,750	42,375	43,950	408,253	207,537
48	11	11	2	14	66	43
354,592	70,750	25,000	11,250	97,700	451,005	302,362
23	5	2	1	6	51	17
245,040	56,000	25,000	12,500	75,625	553,565	178,600
8	9	1	2	10	45	9
154,000	178,500	18,750	30,000	165,000	846,750	172,750
10	...	...	...	1	45	10
497,000	...	...	...	44,000	1,492,514	497,000
8	12	108	45	16	184	19
219	269	1,206	1,559	373	3,612	1,527
5	10	108	43	15	175	15
69	144	1,206	409	278	1,967	252
3	2	...	...	1	7	2
150	125	...	...	95	495	125
...	...	...	1	...	...	1
...	...	...	400	...	...	400
...	...	...	1	...	2	1
...	...	...	750	...	1,150	750

TABLE 13 - ELECTRIC ENERGY GENERATED, 1932

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>ALL STATIONS</u>				
Total kilowatt hours generated.....(thousands)	16,052,057	4,662	279,854	427,604
Per cent of total for Canada .....	100.00	0.03	1.74	2.66
Kilowatt hours generated by non-generating stations.....(thousands)	1,399	...	122	3
Kilowatt hours generated by generating stations.....(thousands)	16,050,658	4,662	279,732	427,601
K.V.A. capacity of generating stations .....	5,420,880	4,929	127,665	110,776
Ratio of output to maximum capacity .....	35.9	10.8	28.0	44.1
Average kilowatt hours per K.V.A. ....	2,961	946	2,191	3,860
<u>GENERATING STATIONS</u>				
<u>Commercial Stations</u>				
<u>Total</u>				
Kilowatt hours generated.....(thousands)	12,338,103	3,943	118,437	389,910
K.V.A. capacity .....	3,953,135	4,164	69,979	93,923
Ratio of output to maximum capacity .....	38.0	10.8	24.0	47.4
Average kilowatt hours per K.V.A. ....	3,121	947	1,692	4,151
<u>Hydraulic Stations</u>				
Kilowatt hours generated.....(thousands)	12,178,054	379	33,177	370,181
K.V.A. capacity .....	3,828,156	414	13,049	80,900
Ratio of output to maximum capacity .....	38.7	10.4	29.0	52.2
Average kilowatt hours per K.V.A. ....	3,181	915	2,542	4,576
<u>Fuel Stations</u>				
Kilowatt hours generated.....(thousands)	160,049	3,564	85,260	19,729
K.V.A. capacity .....	124,979	3,750	56,930	13,023
Ratio of output to maximum capacity .....	16.4	10.8	22.5	17.3
Average kilowatt hours per K.V.A. ....	1,281	950	1,498	1,515
<u>Municipal Stations</u>				
<u>Total</u>				
Kilowatt hours generated.....(thousands)	3,712,555	719	161,295	37,691
K.V.A. capacity .....	1,467,745	765	57,686	16,853
Ratio of output to maximum capacity .....	30.4	10.7	31.9	25.5
Average kilowatt hours per K.V.A. ....	2,529	940	2,796	2,236
<u>Hydraulic Stations</u>				
Kilowatt hours generated.....(thousands)	3,547,895	...	158,234	20,389
K.V.A. capacity .....	1,333,066	...	55,306	10,263
Ratio of output to maximum capacity .....	32.1	...	32.7	22.7
Average kilowatt hours per K.V.A. ....	2,661	...	2,861	1,987
<u>Fuel Stations</u>				
Kilowatt Hours generated.....(thousands)	164,660	719	3,061	17,302
K.V.A. capacity .....	134,679	765	2,380	6,590
Ratio of output to maximum capacity .....	14.0	10.7	14.7	30.0
Average kilowatt hours per K.V.A. ....	1,223	940	1,286	2,625
<u>Total Hydraulic Stations</u>				
Kilowatt hours generated.....(thousands)	15,725,949	379	191,411	390,570
K.V.A. capacity .....	5,161,222	414	68,355	91,163
Ratio of output to maximum capacity .....	37.0	10.4	32.0	48.9
Average kilowatt hours per K.V.A. ....	3,047	915	2,800	4,284
Kilowatt hours generated by water power(thousands)	15,723,838	351	191,311	390,570
Kw. hours generated by auxiliary plants(thousands)	2,111	28	100	...
<u>Total Fuel Stations</u>				
Kilowatt hours generated.....(thousands)	324,709	4,283	88,321	37,031
K.V.A. capacity .....	259,658	4,515	59,310	19,613
Ratio of output to maximum capacity .....	15.1	10.8	22.1	21.6
Average kilowatt hours per K.V.A. ....	1,251	949	1,489	1,888
<u>CONSUMPTION OF ELECTRIC ENERGY (Thousands of Kilowatt Hours)</u>				
Total kilowatt hours generated .....	16,052,057	4,662	279,854	427,604
Kilowatt hours imported from the United States....	552	...	...	72
Kilowatt hours imported from other provinces.....	...	...	...	5,221
Kilowatt hours exported to the United States .....	659,691	...	...	11,755
Kilowatt hours exported to other provinces .....	...	...	...	...
Kilowatt hours for consumption in Canada .....	15,392,918	4,662	279,854	421,142
Domestic service .....	1,639,498	1,498	21,213	19,230
Commercial light .....	767,313	920	14,045	12,364
Small power .....	...	639	14,660	5,859
Large power .....	...	614	205,171	355,687
Street lighting .....	12,986,107	224	4,118	2,882
Free service (other than street lighting)....	...	...	1,083	81
Losses .....	...	767	19,564	25,039



TABLE 13 - ELECTRIC ENERGY GENERATED, 1932

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
8,491,128 52.90 ...	4,258,042 26.53 ...	x 1,087,010 6.77 1,228	x 135,898 0.85 ...	195,467 1.22 ...	1,172,392 7.30 46
8,491,128	4,258,042	1,085,782	135,898	195,467	1,172,346
2,533,177 41.9 3,352	1,548,972 32.9 2,749	379,958 32.6 2,858	115,017 13.5 1,182	123,295 18.1 1,585	477,091 29.0 2,457
8,449,936 2,506,283 42.2 3,372	1,326,192 435,748 34.7 3,043	698,958 253,906 31.4 2,753	37,083 40,951 10.3 906	154,475 79,031 22.3 1,955	1,159,169 469,150 29.1 2,471
8,449,813 2,506,143 42.2 3,372	1,326,119 435,623 34.7 3,044	698,359 253,350 31.5 2,756	...	143,442 70,740 23.2 2,028	1,156,584 467,937 29.2 2,472
123 140 10.0 879	73 125 6.7 584	599 556 12.3 1,077	37,083 40,951 10.3 906	11,033 8,291 15.2 1,331	2,585 1,213 24.3 2,131
41,192 26,894 17.6 1,532	2,931,850 1,113,224 32.2 2,634	386,824 126,052 35.0 3,069	98,815 74,066 15.2 1,334	40,992 44,264 10.6 926	13,177 7,941 19.2 1,659
40,195 23,039 20.1 1,745	2,931,183 1,112,520 32.2 2,635	384,105 123,725 35.4 3,105	...	1,434 850 19.3 1,687	12,355 7,363 19.5 1,678
997 3,855 3.0 259	667 704 10.8 947	2,719 2,327 13.3 1,168	98,815 74,066 15.2 1,334	39,558 43,414 10.4 911	822 578 16.2 1,422
8,490,008 2,529,182 42.0 3,357 8,489,982 26	4,257,302 1,548,143 32.9 2,750 4,257,191 111	1,082,464 377,075 32.8 2,871 1,082,236 228	...	144,876 71,590 23.1 2,024 144,342 534	1,168,939 475,300 29.0 2,459 1,167,855 1,084
1,120 3,995 3.2 280	740 829 10.2 893	3,318 2,883 13.1 1,151	135,898 115,017 13.5 1,182	50,591 51,705 11.2 978	3,407 1,791 21.7 1,908
8,491,128 82 ...	4,258,042 ...	1,087,010 157 ...	135,898 ...	195,467 241 1,687	1,172,392 ...
423 1,645,222	1,640,001 647,081 ...	...	...	...	...
6,845,565 239,032 173,727 91,849 4,609,533 40,514 63,129 1,627,781	5,250,962 912,169 362,300 3,976,493	1,087,167 270,272 88,362 52,249 494,588 17,260 10 164,426	135,898 36,142 18,649 18,920 33,729 7,556 63 20,839	197,395 29,752 24,137 30,418 61,563 7,520 2,017 41,948	1,170,575 110,150 72,809 5,520 748,447 19,140 3,450 210,317

x - Output of one hydraulic station in Saskatchewan is included with Manitoba.

TABLE 14 - FUEL, 1932

Provinces	Bituminous Coal			
	Canadian		Imported	
	Quantity Tons	Value \$	Quantity Tons	Value \$
Canada .....	270,835	1,152,858	8,226	48,709
Prince Edward Island .....	2,409	14,891	3,171	23,581
Nova Scotia .....	91,890	336,364	...	...
New Brunswick .....	33,436	137,782	2,820	10,000
Quebec .....	...	...	2,161	14,803
Ontario .....	50	250	74	325
Manitoba .....	3,556	14,399	...	...
Saskatchewan .....	132,951	625,075	...	...
Alberta .....	1,950	5,688	...	...
British Columbia and Yukon .....	4,593	18,409	...	...

	Kerosene		Fuel Oil	
	Quantity Gal.	Value \$	Quantity Gal.	Value \$
Canada .....	52,437	11,346	2,983,380	308,484
Prince Edward Island .....	125	30	78,635	8,161
Nova Scotia .....	...	...	93,224	12,209
New Brunswick .....	...	...	134,931	13,760
Quebec .....	...	...	36,926	3,407
Ontario .....	...	...	125,739	9,507
Manitoba .....	4,392	900	244,187	35,623
Saskatchewan .....	36,707	8,037	1,862,472	175,972
Alberta .....	11,213	2,379	171,496	25,111
British Columbia and Yukon .....	...	...	235,770	24,734

TABLE 14 - FUEL, 1932

Anthracite Coal		Lignite Coal Canadian		Gasoline	
Quantity Tons	Value \$	Quantity Tons	Value \$	Quantity Gal.	Value \$
....	.....	116,554	187,925	63,619	17,604
....	.....	....	...	60	18
....	.....	....	...	90	22
....	.....	....	...	...	...
....	.....	....	...	590	153
....	.....	....	...	...	...
....	.....	3,626	11,339	8,695	2,662
....	.....	22,961	38,276	29,136	7,514
....	.....	89,967	138,310	23,548	6,795
....	.....	....	...	1,500	440

Wood		Natural Gas		Other Fuel	Total
Quantity Cords	Value \$	Quantity 1000 cu. ft.	Value \$	Value \$	Value \$
8,567	25,181	303,958	11,509	69,899	1,833,515
100	300	...	...	...	46,381
...	...	...	...	61,472	410,067
84	179	...	...	...	161,721
...	...	...	...	6,893	25,256
...	...	...	...	1,500	11,582
5,334	15,311	...	...	...	80,234
140	196	...	...	...	855,070
1,915	2,686	303,958	11,509	34	192,512
994	6,509	...	...	...	50,092













CANADA

DOMINION BUREAU OF STATISTICS

TRANSPORTATION & PUBLIC UTILITIES BRANCH

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(CENSUS OF INDUSTRY, 1933)

*Electric power statistics*

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

1933

(Prepared in collaboration with the  
Dominion Water Power and Hydrometric  
Bureau, Department of the Interior)

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**DOMINION BUREAU OF STATISTICS**  
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CENTRAL ELECTRIC STATION INDUSTRY, 1933

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves, or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies, or individuals, and (b) municipal, those operated by municipal, provincial, or Federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell; many of them also purchase power to supplement their own output, and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 5 stations which were holding generating equipment classed as auxiliary plant equipment. Seventeen of them purchased all their electric energy and the remaining eight generated only 311,000 kilowatt hours. This explains the rather anomalous item in table 13 showing the output of non-generating stations.

Included in these statistics are those of some stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants, the statistics pertaining to the central electric station phase of the industry have been segregated as accurately as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual report are for comparable periods and the annual reports are also comparable.

The output of central electric stations rose steadily from 5,497,204,000 kilowatt hours in 1919, the first year for which the data were collected, to 18,093,802,000 kilowatt hours in 1930 and then declined for about two years. The index of monthly outputs reached a peak in May, 1930, and then declined more or less steadily to July, 1932; from then on it rose fairly steadily with only one extended decline in 1934 which was regained in two months to reach a new all time peak in November, 1934. The exports to the United States suffered the most during the decline, amounting to only 659,691,000 kilowatt hours in 1932 as against 1,632,614,000 kilowatt hours in 1927.

A comparatively new use for electricity is to produce steam in boilers specially constructed for that purpose. In January, 1924, less than 6 million kilowatt hours were used for this purpose, but in November, 1934, over 500 million kilowatt hours were consumed by electric boilers. The majority of these boilers are in pulp and paper mills and the revival of the paper industry in 1933 and 1934 caused a large increase in the consumption of electric power for both power and steam purposes. The total electric boiler consumption during 1933 amounted to 3,608,400,000 kilowatt hours, or over 20 per cent of the total production. It is sold at a very low rate and, when a more lucrative market develops, will be diverted to other uses. In some cases only off-peak power is used and in others 24-hour surplus power is used. There has also been developed a market in the United States for surplus power from the Niagara plants; these exports dwindled during the depression and practically ceased in 1932, but they were resumed in 1933 and for the year amounted to 84,351,500 kilowatt hours.



Electricity is exported from Canada only by license granted by the Electricity and Gas Inspection Service of the Department of Trade and Commerce, and the same branch of the department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1934, the export duty amounted to \$244,474 as against only \$87,745 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export for the calendar year 1933, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES, 1933 (Calendar Year)

Company	Produced for Export Kilowatt Hours	Exported Kilowatt Hours
Hydro Electric Power Commission of Ontario .....	352,942,700	348,221,500
Hydro Electric Power Commission of Ontario (Surplus) .....	83,858,200	82,783,408
Cedar Rapids Manufacturing and Power Company, Ltd. ....	349,798,064	334,128,741
Canadian Niagara Power Company, Ltd. ....	193,416,400	188,646,789
Canadian Niagara Power Company, Ltd. (Surplus) .....	493,300	493,300
Ontario and Minnesota Power Company, Ltd. ....	16,538,050	16,538,050
Maine and New Brunswick Electrical Power Company .....	11,767,574	11,165,650
British Columbia Electric Railway Company, Ltd. ....	173,849	151,249
Northport Power and Light Company .....	254,732	254,732
Maritime Electric Company, Ltd. ....	495,240	495,240
Southern Canada Power Company .....	382,262	382,562
Northern British Columbia Power Company .....	42,210	42,210
Fraser Companies, Ltd. ....	5,816,800	5,803,400
Detroit and Windsor Subway Company .....	257,300	257,300
Total .....	1,016,236,981	989,364,131
Kilowatt hours produced for export and exported by central electric stations only .....	1,010,420,181	983,560,731

Of the total output of 17,338,990,000 kilowatt hours, 17,006,069,000 kilowatt hours, or over 98 per cent, were produced by water power, whereas only 330,933,000 kilowatt hours were produced by plants using only thermal engines and 1,988,000 kilowatt hours were produced by auxiliary equipment in hydraulic and non-generating stations.

The total hydraulic installation in all industries in Canada in 1933, as compiled by the Dominion Water Power and Hydrometric Bureau, was 7,332,070 horse power which was about 17 per cent of the total that the recorded falls would warrant installing under present day practices. The available and developed water power in Canada is shown in the following table.



POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24-hour power at 80% efficiency		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1933	1934
(1)	(2) H.P.	(3) H.P.	(4) H.P.	(5) H.P.
Prince Edward Island .....	3,000	5,300	2,439	2,439
Nova Scotia .....	20,800	128,300	112,167	116,367
New Brunswick .....	68,600	169,100	133,681	133,681
Quebec .....	8,459,000	13,064,000	3,493,320	3,703,320
Ontario .....	5,330,000	6,940,000	2,355,105	2,355,755
Manitoba .....	3,309,000	5,344,500	390,925	390,925
Saskatchewan .....	542,000	1,082,000	42,035	42,035
Alberta .....	390,000	1,049,500	71,597	71,597
British Columbia .....	1,931,000	5,103,500	717,602	717,717
Yukon and Northwest Territories.....	294,000	731,000	13,199	13,199
CANADA .....	20,347,400	33,617,200	7,332,070	7,547,035

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals.

With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power.

The following table shows the provincial production plus imports less exports, the net amount being the consumption within each province including all line losses; the deliveries to electric boilers in each province are shown here segregated from other uses. The consumption of electric energy is further analysed in Table 13.

CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)  
(Thousands of Kilowatt Hours)

Province	Delivered to Electric Boilers	Other Uses and Line Losses	Total		Comparison of Totals 1933 - 1932	
			1933	1932	(Increase + Decrease -)	
					Kw. hrs.	Per cent
Prince Edward Island .....	-	4,765	4,765	4,662	+ 103	+ 2.21
Nova Scotia .....	-	330,436	330,436	279,854	+ 50,582	+ 18.07
New Brunswick .....	74,384	297,895	372,279	421,142	- 48,863	- 11.60
Quebec .....	2,854,406	4,597,562	7,451,968	6,845,565	+ 606,403	+ 8.86
Ontario .....	513,984	5,049,663	5,563,647	5,250,962	+ 312,685	+ 5.95
Manitoba .....	163,763	913,594	1,077,357	1,087,167	- 9,810	- .90
Saskatchewan .....	-	131,164	131,164	135,898	- 4,734	- 3.48
Alberta .....	-	184,792	184,792	197,395	- 12,603	- 6.38
British Columbia and Yukon..	1,863	1,237,766	1,239,629	1,170,273	+ 69,356	+ 5.93
CANADA .....	3,608,400	12,747,637	16,356,037	15,392,918	+ 963,119	+ 6.26

TABLE 1 - COMPARATIVE SUMMARY, 1924-1933

There has been little change in the number of plants operated during the past decade but the investment has increased from \$628,565,093 in 1924 to \$1,386,532,055, or by 120 per cent. The output almost doubled, increasing from 9,315,277,000 to 18,093,802,000 kilowatt hours in 1930 and to 17,338,000,000 kilowatt hours in 1933. The number of domestic service customers, or the number of homes using electricity, increased by 382,296 or 39 per cent, amounting to 1,371,306 in 1933. Although the output about doubled the rated capacity in main plant increased from 2,282,046 K.V.A. in 1924 to 5,491,685 K.V.A., or by 140 per cent. In computing the revenues in this table inter-station payments have been deducted and the payments by consumers and United States importers only have been considered revenue.

TABLE 2 - POWER PLANTS

The definition of a central electric station as adopted for census purposes was given at the beginning of this report. Some organizations operate several systems which are in different municipalities and which are not connected by transmission lines, and, in other cases, many municipalities are served from one power plant or several inter-connected plants. The organizations reporting are counted as they report. If a commercial organization makes a separate report for each of its subsidiary companies, each such subsidiary company is counted, and if it includes them all in one report, they are counted as only one organization. The nature of control is so varied that it is not practicable to do otherwise. The power plants shown in this table are individual plants, counted irrespective of ownership or location. In some cases, two or more of these are operated by one company, some of them being close together, and others, miles apart. During the year there was a net increase in plants operated of 3. In Ontario, Alberta and British Columbia increases of 1, 2 and 3 plants, respectively, were recorded and in Nova Scotia, Manitoba and Saskatchewan there was a total decrease of 3 plants.

TABLE 3 - CAPITAL

The capital employed in the industry is reported under four heads, viz., generation, transmission, distribution and general. Generation includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. Transmission includes investments in receiving stations and sites, rights of way of transmission lines and step-up transformers. Distribution includes investments in substations and sites and rights of way of distribution lines, switchboards and step-down transformers in receiving stations and substations, distribution lines, line transformers, meters etc. General includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, of stations operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants which have been made for future installations of equipment. Consequently the averages per horse power and per K.V.A. are increased by the inclusion of such capital. The averages of investment per mile of distribution and transmission line are more indicative of the different types of lines in each province than of comparative costs of the same types. The total investment of \$1,386,532,055 as at December 31, 1933, was the largest investment in any manufacturing industry in Canada and was an increase over the 1932 total of \$50,645,068. Quebec stations which accounted for 44 per cent of the total investment showed an increase during the year from \$574,953,411 to \$606,904,478, Ontario stations increased from \$473,717,409 to \$489,514,618 and investments in the three Prairie Provinces showed small decreases. The averages of total capital per horse power and per K.V.A. include all transmission, distribution and general capital, but the averages of generation capital per rated unit of power equipment include only investments in power houses, etc. as described above.

TABLE 4 - REVENUES

The schedule required a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service which includes lighting and all other uses in private residences, (3) commercial light, (4) power, small, 50 KW. and under, (5) power, large, over 50 KW.,



(6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge for street lighting, to public buildings, etc. The revenue is the gross revenue less cost of power or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick and Alberta, which purchased power from other provinces, were lower than they should have been. For the last two provinces the differences were slight, but for Ontario in 1931 revenue from large power would have been increased from \$20,964,502 to \$27,253,951 and total revenue would have been increased by the same amount if computed as in 1932 and 1933. Also, by dividing this total revenue by the kilowatt hours generated plus the kilowatt hours imported, the average revenue per kilowatt hour sold would have been reduced from 0.95 to 0.81 cent in 1931. The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services and for commercial light, line losses were not included, the consumption for these two services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses.

TABLE 5 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Salaries were reduced in 1932 and again in 1933 to \$21,431,877 from \$23,261,166 for the previous year. The cost of fuel and power was higher, but taxes were lower than in 1932. Taxes paid by municipal systems include taxes on commercial plants acquired by the Ontario provincial system and continued, and, in Manitoba, Saskatchewan and Alberta, taxes paid by the municipal systems of Winnipeg, Saskatoon, Lethbridge and Calgary accounted for practically the total amount. Taxes paid by commercial stations amounted to \$5,372,581, or 6.22 per cent of their gross revenues. Over half of this was paid by Quebec stations where the tax amounted to 5.83 per cent of gross revenues, or 0.33 cent per kilowatt hour of output.

TABLE 6 - EMPLOYEES

There was a decrease in the number of employees from 1932 of 678, or 4.4 per cent. The decreases were general throughout all the provinces except Prince Edward Island. The largest decreases were in Quebec and Manitoba where cuts of 197, or 6 per cent, and 141, or 12 per cent, respectively, were made. The table below analyses the rates of wages paid to those employees on hourly wage bases.

Number of Wage-earners in month of Highest Employment whose Regular Hours per Week were:

Hrs. per Week	40 hrs or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60	Over 60 hrs	Total
P.E. Island	9	-	-	-	1	-	-	8	-	16	1	1	36
Nova Scotia	55	14	30	4	284	23	2	67	2	98	33	28	640
New Brunswick	40	2	-	39	134	-	2	11	-	16	50	10	304
Quebec	142	108	7	28	729	140	144	55	15	393	385	149	2,295
Ontario	848	10	435	84	919	768	19	263	65	259	537	108	4,315
Manitoba	130	1	197	14	132	11	11	6	3	8	18	-	571
Saskatchewan	38	-	65	18	94	5	4	51	6	1	10	48	340
Alberta	157	-	24	-	220	4	-	-	-	3	-	-	408
B.C. & Yukon	244	8	73	-	477	3	2	1	-	37	-	1	840
CANADA	1,663	143	831	187	2,990	954	184	462	91	831	1,034	345	9,715

TABLE 7 - CUSTOMERS

As explained under table 4, the schedule asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality itself distributed it. The provinces having high percentages of urban population had the greatest densities of domestic service customers. British Columbia led with an average of 17.83 domestic service customers per 100 population. Ontario followed with an average of 16.98, and Quebec was next with 12.97. Nova Scotia, Ontario, Manitoba and British Columbia showed a total increase in domestic service customers of 15,734, Ontario accounting for 13,004 of them, but the other provinces showed decreases from the previous year. Although the fuel stations generated only 2 per cent of the total output they served 87,064 domestic service customers, or 8.4 per cent of the total. The changes in numbers of customers of fuel stations in Nova Scotia and Quebec are due to reclassification and transfer of customers from one class of station to another more than actual increase or decrease of customers.

TABLE 8 - POLE LINE MILEAGE

The pole line mileage is divided into two divisions, (a) transmission, which includes lines from power houses to receiving stations, and (b) distribution, which includes lines from receiving stations to substations and to customers and, if the power is not stepped up in any power house for transmission, all the pole line mileage of that system is included with the distribution mileage. These mileages are counted irrespective of the number of circuits carried on the poles and towers. Increases in pole line mileage were recorded in every province except Quebec, Ontario leading with a gain of 2,500 miles and British Columbia coming second with 96 miles, the total increase for Canada being 2,725 miles.

TABLES 9-10-11 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using fuel only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydroelectric stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 1,677,000 kilowatt hours being generated during the year by this auxiliary equipment. In previous years the greater part of this output of auxiliary equipment in hydro-electric plants was produced by British Columbia stations, but such operations were greatly reduced during the last three years. During the year the net increase in main plant equipment was 278,352 horse power in primary power and 213,481 K.V.A. in dynamo capacity. Quebec stations added 146,162 horse power, Ontario stations added 134,025 horse power and British Columbia stations, 576 horse power. During the year there was a net addition of 6 hydraulic turbines of 269,734 horse power capacity, including 4 of 34,000 horse power each in Quebec stations and 2 of 66,000 horse power each in Ontario stations. There was a net decrease of one steam reciprocating engine and one steam turbine while internal combustion engines were increased by 7 in number and 335 in horse power.

TABLE 13 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for these stations which have no watt hour meters, the kilowatt hours are estimated as best possible. The K.V.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 K.V.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed



on November 30, its maximum capacity would be only 744,000 kilowatt hours. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio for 1933 was 35.9 per cent, the same as in 1932, and was the lowest during the past decade. The highest ratio was reached in 1928 with 51.2 per cent and the ratio has decreased each succeeding year to 1932. It is quite obvious that the output will never reach 100 per cent of the rated capacity of the industry and it is also apparent that the present installations could meet a demand considerably greater than the 1933 load. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale has been growing quite rapidly, particularly in 1933 and 1934. The electricity sold for use in electric boilers during 1931, 1932 and 1933 was as follows.

ELECTRICITY SOLD FOR USE IN ELECTRIC BOILERS  
(Thousands of Kilowatt Hours)

	1931	1932	1933
January .....	146,422	221,722	286,196
February .....	140,603	216,103	292,797
March .....	145,948	238,503	301,571
April .....	191,119	258,160	291,516
May .....	153,920	219,912	283,088
June .....	128,333	200,720	265,146
July .....	117,200	193,827	266,831
August .....	119,633	210,034	287,228
September .....	126,849	216,719	249,033
October .....	184,531	278,852	291,645
November .....	209,351	289,223	391,597
December .....	208,116	292,564	401,752
TOTAL .....	1,872,025	2,836,339	3,608,400

At the bottom of the table are shown the quantities of power used for the various services. Some of the items are partly estimated, particularly power, street lighting and line losses, but, because of the large percentage which is measured, any errors in the estimates would be a small percentage of the total and would not destroy the value of the data for statistical purposes.

TABLE 14 - FUEL

The total fuel bill was slightly higher than in 1932, amounting to \$1,845,928, the whole increase being in wood and imported bituminous coal. The total production of power from this fuel was 332,921,000 kilowatt hours, or an average cost for fuel of .54 cent per kilowatt hour. The chief factors in this relatively high fuel cost per unit of output are the size of the plants and the large percentage of the total load which was domestic service. Approximately 20 per cent of the total sales by fuel stations was for domestic service and in Saskatchewan, where all stations are fuel, and in Prince Edward Island, where a large percentage of the service is supplied by fuel stations, the ratios were 27.7 per cent and 33.2 per cent, respectively, as against only 3.2 per cent in Quebec and 10.1 per cent for all of Canada.

DOMESTIC SERVICE

On the following page is a table bringing together and analysing the domestic service data for each province. The concentration of population in the cities, towns and villages having electric service would affect the number of customers, the number per 100 population, and ratios of consumption to total provincial consumptions and to the domestic consumption in Canada. The price would affect consumption, average bill, average cost per kilowatt hour, and, to a lesser degree, the number of customers. The habits and customs of the people also would have an effect on the consumption. British

Columbia ranked first in density of customers, Ontario was second and Quebec third. The annual average bills for domestic service were remarkably close together in all the provinces, especially in view of the large differences in consumptions and cost per kilowatt hour. This indicates that with adequate supply low rates greatly induce increased consumption. Manitoba showed by far the lowest average cost per kilowatt hour and the largest consumption per customer and per capita. These were largely affected by the flat rate for water heaters in Winnipeg which increases the consumptions and reduces the average cost per kilowatt hour.

DOMESTIC SERVICE  
1933

Province	Number of Customers		Average Bill (For ) (Year)	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	Per cent of Total Provincial Consumption	Per cent of Dominion Dom. Serv. Consumption
			\$	¢	Kw.Hr.	Kw.Hr.		
P.E. Island .....	3,970	4.46	34.06	8.54	399	18	33.2	0.1
Nova Scotia .....	47,124	9.03	25.46	5.50	463	42	6.6	1.3
New Brunswick .....	34,959	8.32	27.30	5.09	536	45	5.0	1.1
Quebec .....	385,175	12.97	20.24	3.25	623	81	3.2	14.6
Ontario .....	598,347	16.98	27.18	1.77	1,534	260	16.5	55.6
Manitoba .....	72,935	10.10	37.62	1.00	3,771	381	25.5	16.7
Saskatchewan .....	44,319	4.66	40.07	4.89	819	38	27.7	2.2
Alberta .....	57,330	7.57	30.15	5.83	517	39	16.1	1.8
British Columbia and Yukon .....	127,647	17.83	26.30	3.07	858	153	8.8	6.6
CANADA .....	1,371,806	12.84	26.21	2.18	1,203	155	10.1	100.0

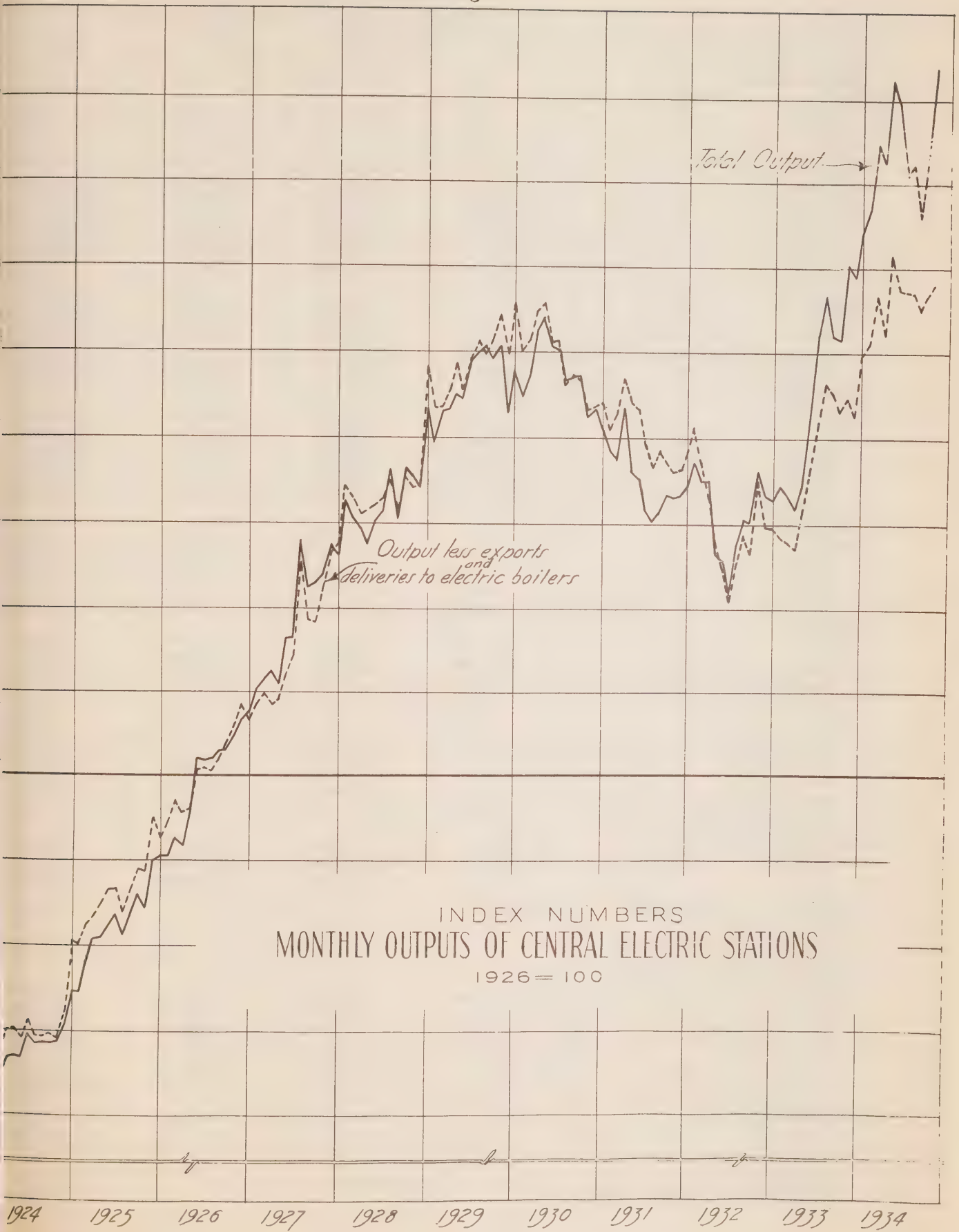




Table 1 - COMPARATIVE SUMMARY, 1933-1924

Principal Data by Class of Station	1933	1932	1931	1930
<b>Electric Power Plants-</b>				
Total .....	575	572	559	587
Hydraulic .....	314	312	307	311
Fuel .....	261	260	252	276
Commercial .....	403	402	396	421
Municipal .....	172	170	163	166
<b>Capital-</b>				
Total .....	1,386,532,055	1,335,886,987	1,229,988,951	1,138,200,016
Commercial .....	913,946,953	880,013,400	785,915,480	723,890,071
Municipal .....	472,585,102	455,873,587	444,073,471	414,309,945
Generating .....	1,240,169,785	1,191,499,567	1,092,292,089	995,701,285
Non-generating .....	146,362,270	144,387,420	137,696,862	142,498,731
<b>Revenue (1)</b>				
Total .....	117,532,081	121,212,679	122,310,730	126,038,145
Commercial .....	73,082,078	73,124,089	72,103,930	73,261,572
Municipal .....	44,450,003	48,088,590	50,206,800	52,776,573
Generating .....	98,735,084	100,821,712	101,475,523	104,632,540
Non-generating .....	18,796,997	20,390,967	20,835,207	21,405,605
<b>Expenses (2)</b>				
Total .....	73,051,651	74,306,251	75,235,767	74,209,469
Commercial .....	29,169,633	30,349,320	32,418,131	33,712,063
Municipal .....	43,882,018	43,956,931	42,817,636	40,497,406
Generating .....	38,608,455	40,262,157	41,336,873	40,646,659
Non-generating .....	34,443,196	34,044,094	33,898,894	33,562,810
<b>Pole Line Mileage-</b>				
Total .....	56,570	53,845	52,399	48,814
Commercial .....	25,129	25,010	24,299	23,614
Municipal .....	31,441	28,835	28,100	25,200
Generating .....	43,625	40,675	39,709	35,707
Non-generating .....	12,945	13,170	12,690	13,107
<b>Customers-</b>				
Total .....	1,666,882	1,657,454	1,632,792	1,607,881
Domestic service (3) .....	1,371,806	1,357,462	1,336,721	1,317,324
Commercial light .....	244,283	248,487	244,634	238,847
Power (small) .....	40,641	28,942	25,913	24,836
Power (large) .....	8,160	20,593	23,583	25,150
Street lighting .....	1,992	1,970	1,941	1,724 (5)
Commercial stations .....	776,581	776,400	758,285	745,608
Municipal stations .....	890,301	881,054	874,507	862,158
Generating stations .....	843,324	846,420	835,460	814,268
Non-generating stations .....	823,558	811,034	797,332	793,498
<b>Electric Energy Generated-</b>				
Total Kilowatt Hours (thousands) .....	17,338,990	16,052,057	16,330,867	18,093,802
Commercial .....	13,665,974	12,338,216	12,191,139	12,937,014
Municipal .....	3,673,016	3,713,841	4,139,707	5,156,788
<b>Exports of Electricity to the United States (thousands) (6) .....</b> Kw.H.				
Imports of Electricity from the United States (thousands) (6) ..... Kw.H.	983,561	659,691	1,227,036	1,612,281
<b>Equipment in Generating Stations (Main Plant Only)</b>				
Total Primary Power .....	6,616,006	6,343,654	5,706,757	5,401,108
Total in Commercial Stations .....	4,707,096	4,577,493	4,046,810	3,794,819
Total in Municipal Stations .....	1,908,910	1,766,161	1,659,947	1,606,289
Total Secondary Power .....	5,491,685	5,278,204	4,727,376	4,474,865
Total in Commercial Stations .....	3,956,475	3,850,009	3,388,926	3,181,428
Total in Municipal Stations .....	1,535,210	1,428,195	1,338,450	1,293,437
<b>Auxiliary Plant Equipment-</b>				
Primary Power .....	193,569	184,879	184,043	171,453
Secondary Power .....	164,732	157,077	157,221	145,678

(1) Duplicates excluded.

(2) Includes wages, cost of power and fuel for 1933-1924 and for 1933-1925 taxes but not other expenses.

(3) Farm service is included with domestic service.

TABLE 1 - COMPARATIVE SUMMARY, 1933-1924

1929	1928	1927	1926	1925	1924
585	601	629	595	563	532
300	300	302	294	284	273
285	301	327	301	279	259
420	428	432	393	365	333
165	173	197	202	198	199
1,055,731,532	956,919,603	866,825,285	756,220,066	726,721,087	628,565,093
685,771,270	614,910,399	528,070,964	430,817,426	409,862,801	326,554,580
369,960,262	342,009,204	338,754,321	325,402,640	316,858,286	302,010,513
926,103,973	835,422,031	750,703,270	647,850,154	625,970,883	532,016,164
129,627,559	121,497,572	116,122,015	108,369,912	100,750,204	96,548,929
122,883,446	112,326,819	104,033,297	88,933,733	79,341,584	74,616,863
70,874,794	64,575,700	59,320,175	47,911,555	42,195,543	39,033,665
52,008,652	47,751,119	44,713,122	41,022,178	37,146,041	35,583,198
102,704,833	92,722,293	86,369,058	72,123,290	63,547,553	59,861,915
20,178,613	19,604,526	17,664,239	16,810,443	15,794,031	14,754,948
67,432,418	62,330,860	60,169,781	52,766,799	47,635,531	40,887,779
31,888,591	30,961,337	28,704,496	24,622,619	21,325,649	16,777,557
35,543,827	31,369,523	31,465,285	28,144,180	26,309,882	24,110,222
36,713,723	33,837,618	31,920,941	27,655,269	24,857,279	20,198,257
30,718,695	28,493,242	28,248,840	25,111,530	22,778,252	20,689,522
42,913	37,333	33,573	29,695	27,653	26,654
22,356	18,875	16,747	14,257	13,047	12,102
20,557	18,458	16,826	15,438	14,606	14,552
30,718	25,524	23,246	20,005	18,372	17,340
12,195	11,809	10,327	9,690	9,281	9,314
1,555,883	1,464,005	1,381,968	1,337,562	1,279,731	1,200,950
1,292,481	1,207,457	1,142,512	1,110,637	1,063,530	989,510
233,854(4)	215,728	199,431	188,553	180,994	176,444
( 28,001	( 40,820	( 40,025	( 38,372	( 35,207	( 34,996
( 1,547	( -	( -	( -	( -	( -
.....	.....	.....	.....	.....	.....
733,698	677,223	622,823	584,760	559,172	521,064
822,185	786,782	759,145	752,802	720,559	679,886
796,298	728,872	699,874	680,717	653,032	610,206
759,585	735,133	682,094	656,845	626,699	590,744
17,962,515	16,337,804	14,549,099	12,093,445	10,110,459	9,315,277
12,774,107	11,460,974	9,944,422	7,797,480	6,527,103	6,024,312
5,188,408	4,876,830	4,604,677	4,295,965	3,583,356	3,290,965
1,444,524	1,587,761	1,632,614	1,506,002	1,285,540	1,302,317
6,133	5,223	5,020	5,354	.....	.....
4,925,555	4,627,667	4,173,349	3,769,323	3,569,527	2,849,450
3,523,625	3,268,350	2,797,055	2,423,244	2,243,318	1,701,793
1,401,930	1,359,317	1,376,294	1,346,079	1,326,209	1,147,657
4,048,019	3,764,331	3,385,227	2,995,387	2,844,709	2,282,046
2,940,210	2,690,097	2,297,005	1,938,048	1,803,545	1,401,471
1,107,809	1,074,234	1,088,222	1,057,339	1,041,164	880,575
171,888	159,233	145,047	176,865	173,170	168,102
146,251	135,440	121,863	145,828	142,421	136,755

) Includes small power customers in 1929.

b) Revised.

c) By central electrical stations only; see page 2.

TABLE 2 - ELECTRIC POWER PLANTS, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Number of Generating Stations</u> .....	575	11	47	15
Per cent of total for Canada .....	100.00	1.91	8.17	2.61
<u>Commercial</u> .....	403	9	23	10
Hydraulic .....	211	8	13	4
Fuel .....	192	1	10	6
<u>Municipal</u> .....	172	2	24	5
Hydraulic ....	103	-	20	3
Fuel .....	69	2	4	2
With water wheels and turbines .....	314	8	33	7
With steam engines only .....	37	-	1	2
With steam turbines only .....	18	1	7	1
With gas or oil engines only .....	194	2	6	4
With both steam engines and turbines .....	7	-	-	1
With both steam and gas or oil engines .....	5	-	-	-
With alternating current dynamos only .....	430	10	44	10
With direct current dynamos only .....	141	1	3	4
With both alternating and direct current dynamos .....	4	-	-	1
<u>Commercial Organizations</u> .....	x 363	8	26	21
Number generating power .....	282	7	13	9
Number buying power for redistribution .....	80	1	13	12
<u>Municipalities</u> .....	x 464	2	29	14
Number generating power .....	82	2	11	4
Number buying power for redistribution .....	381	-	18	10
<u>Auxiliary Plants</u> .....	65	2	8	6
To hydraulic stations .....	40	2	3	-
To non-generating stations .....	25	-	5	6

x - Organizations operating in two or more provinces are not shown under provinces, but are included in total.



TABLE 2 - ELECTRIC POWER PLANTS, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
96	131	27	120	64	64
16.70	22.78	4.70	20.87	11.13	11.13
82	64	13	92	55	55
80	60	4	-	5	37
2	4	9	92	50	18
14	67	14	28	9	9
12	59	3	-	1	5
2	8	11	28	8	4
92	119	7	-	6	42
-	10	4	1	12	7
2	-	-	4	2	1
2	2	14	112	39	13
-	-	1	3	2	-
-	-	1	-	3	1
92	125	20	44	31	54
3	6	6	76	32	10
1	-	1	-	1	-
67	50	16	74	51	49
46	42	11	72	46	36
21	8	5	2	5	13
25	324	17	21	15	16
9	18	10	15	6	7
16	306	7	6	9	9
6	13	6	-	9	15
6	8	2	-	7	12
-	5	4	-	2	3

TABLE 3 - CAPITAL, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	\$	\$	\$	\$
<u>Total Capital</u> .....	1,386,532,055	1,104,155	30,891,582	31,579,952
Per cent of total for Canada .....	100.00	0.08	2.23	2.28
Generation .....	866,615,305	587,775	19,241,816	22,882,815
Transmission .....	212,013,014	...	4,345,180	3,472,023
Distribution .....	221,359,812	431,289	5,228,300	4,076,350
General .....	86,543,924	85,091	2,076,286	1,148,764
<u>Total Capital in Commercial Stations</u> .....	913,946,953	934,147	14,219,070	23,034,308
Generation .....	641,570,337	488,748	6,094,712	18,850,433
Transmission .....	115,039,075	...	2,807,547	1,733,791
Distribution .....	95,863,375	377,885	3,898,461	1,637,112
General .....	61,474,166	67,514	1,418,350	812,972
Non-generating stations .....	36,600,667	5,000	5,882,573	2,000,805
Generating stations .....	877,346,286	929,147	8,336,497	21,033,503
Hydraulic stations .....	854,022,857	108,617	3,257,243	17,673,222
Fuel stations .....	23,323,429	820,530	5,079,254	3,360,281
<u>Total Capital in Municipal Stations</u> .....	472,585,102	170,008	16,672,512	8,545,644
Generation .....	225,044,968	99,027	13,147,104	4,032,382
Transmission .....	96,973,939	...	1,537,633	1,738,232
Distribution .....	125,496,437	53,404	1,329,839	2,439,238
General .....	25,069,758	17,577	657,936	335,792
Non-generating stations .....	109,761,603	...	1,260,817	1,517,972
Generating stations .....	362,823,499	170,008	15,411,695	7,027,672
Hydraulic stations .....	342,605,616	...	14,977,418	5,009,346
Fuel stations .....	20,217,883	170,008	434,277	2,018,326
<u>Total Capital in Non-generating Stations</u> .....	146,362,270	5,000	7,143,390	3,518,777
Generation .....	2,447,197	...	710,897	642,961
Transmission .....	6,819,901	...	1,495,265	226,973
Distribution .....	119,718,595	5,000	3,795,523	2,051,312
General .....	17,376,577	...	1,141,705	597,531
<u>Total Capital in Generating Stations</u> .....	1,240,169,785	1,099,155	23,748,192	28,061,175
Generation .....	864,168,108	587,775	18,530,919	22,239,854
Transmission .....	205,193,113	...	2,849,915	3,245,050
Distribution .....	101,641,217	426,289	1,432,777	2,025,038
General .....	69,167,347	85,091	934,581	551,233
Hydraulic stations .....	1,196,628,473	108,617	18,234,661	22,682,568
Fuel stations .....	43,541,312	990,538	5,513,531	5,378,607
<u>TOTAL CAPITAL</u> .....				
Average per H.P. of primary power .....	210	200	215	241
Average per H.P. including auxiliary equipment .....	204	194	198	231
Average per K.V.A. of dynamo capacity .....	252	224	258	285
Average per K.V.A. including auxiliary equipment .....	245	222	238	274
<u>Generation</u> .....				
Average cost per H.P.(including auxiliary equipment)-				
In all generating stations .....	127	103	128	170
In hydraulic stations .....	130	108	177	178
In fuel stations .....	80	103	64	137

TABLE 3 - CAPITAL, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
\$	\$	\$	\$	\$	\$
606,904,478 43.77	489,514,618 35.30	x 77,865,127 5.62	x 25,340,879 1.83	27,345,796 1.97	95,985,468 6.92
442,493,196 72,781,609 48,950,167 42,679,506	259,008,863 98,581,008 106,710,143 25,214,604	44,278,956 11,206,425 17,723,139 4,656,607	12,424,437 4,248,293 7,443,107 1,225,042	12,835,997 6,633,946 6,944,413 931,440	52,861,450 10,744,530 23,852,904 8,526,584
598,992,103 437,960,271 72,458,329 46,257,439 42,316,064	105,139,024 78,187,428 13,091,863 8,786,683 5,073,050	44,177,072 31,003,383 5,626,161 5,552,095 1,995,433	12,205,506 6,144,166 2,163,069 3,212,167 686,104	21,353,099 10,772,917 6,486,482 3,426,552 667,148	93,892,624 52,068,279 10,671,833 22,714,981 8,437,531
577,083 598,415,020 598,348,773 66,247	2,460,322 102,678,702 102,643,834 34,868	916,304 43,260,768 42,857,903 402,865	1,721,169 10,484,337 ... 10,484,337	80,439 21,272,660 18,645,603 2,627,057	22,956,972 70,935,652 70,487,662 447,990
7,912,375 4,532,925 323,280 2,692,728 363,442	384,375,594 180,821,435 85,489,145 97,923,460 20,141,554	33,688,055 13,275,573 5,580,264 12,171,044 2,661,174	13,135,373 6,280,271 2,085,224 4,230,940 538,938	5,992,697 2,063,080 147,464 3,517,861 264,292	2,092,844 793,171 72,697 1,137,923 89,053
690,751 7,221,624 5,445,098 1,776,526	96,586,780 287,788,814 287,622,570 166,244	4,817,940 28,870,115 28,276,486 593,629	1,819,982 11,315,391 ... 11,315,391	2,106,994 3,885,703 237,481 3,648,222	960,367 1,132,477 1,037,217 95,260
1,267,834 ... 17,000 1,186,479 64,355	99,047,102 295,633 479,773 88,187,422 10,084,274	5,734,244 653,973 2,266,164 2,479,502 334,605	3,541,151 ... 863,067 2,436,904 241,180	2,187,433 62,054 85,331 2,013,762 26,286	23,917,339 81,679 1,386,328 17,562,691 4,886,641
605,636,644 442,493,196 72,764,609 47,763,688 42,615,151 603,793,871 1,842,773	390,467,516 258,713,230 98,101,235 18,522,721 15,130,330 390,266,404 201,112	72,130,883 43,624,983 8,940,261 15,243,637 4,322,002 71,134,389 996,494	21,799,728 12,424,437 3,385,226 5,006,203 983,862 ... 21,799,728	25,158,363 12,773,943 6,548,615 4,930,651 905,154 18,883,084 6,275,279	72,068,129 52,779,771 9,358,202 6,290,213 3,639,943 71,524,879 543,250
198 196 231 229	244 239 303 296	177 165 219 203	187 187 220 220	212 181 261 220	171 157 220 201
143 144 57	127 127 126	93 93 165	92 .. 92	85 111 46	86 86 89

x - Capital invested in one hydraulic station in Saskatchewan included under Manitoba.



TABLE 4 - REVENUE, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	\$	\$	\$	\$
<u>REVENUES</u>				
Revenue from sale of electric energy .....	117,532,081	274,658	4,463,944	x 3,203,198
For domestic service .....	35,953,823	135,231	1,199,951	954,423
For commercial light .....	19,496,632	69,941	673,890	441,705
For power (small) .....	8,232,437	29,823	309,445	202,603
For power (large) .....	49,142,587	19,529	2,087,169	1,512,755
For street lighting .....	4,706,602	20,134	193,489	91,712
Revenue of Commercial Stations .....	73,082,078	224,670	2,943,299	2,179,102
Non-generating .....	4,474,178	543	1,112,251	346,784
Generating .....	68,607,900	224,127	1,831,048	1,832,318
Hydraulic .....	64,341,139	20,394	370,516	1,408,001
Fuel .....	4,266,761	203,733	1,460,532	424,317
Revenue of Municipal Stations .....	44,450,003	49,988	1,520,645	1,024,096
Non-generating .....	14,322,819	...	280,450	323,869
Generating .....	30,127,184	49,988	1,240,195	700,227
Hydraulic .....	25,570,274	...	1,131,490	493,554
Fuel .....	4,556,910	49,988	108,705	206,673
Revenue of non-generating stations .....	18,796,997	543	1,392,701	670,653
Revenue of generating stations .....	98,735,084	274,115	3,071,243	2,532,545
Revenue of hydraulic stations .....	89,911,413	20,394	1,502,006	1,901,555
Revenue of fuel stations .....	8,823,671	253,721	1,569,237	630,990
Average net revenue per H.P. of primary power .....	17.76	49.69	31.01	(x)
Average net revenue per H.P. in main & auxiliary plants .....	17.26	48.25	28.63	(x)
Average net revenue per K.V.A. of dynamo capacity....	21.40	55.72	37.27	(x)
Average net revenue per K.V.A. in main & auxiliary plants .....	20.78	55.19	34.36	(x)
Average net revenue per kilowatt hour consumed (cents)	0.68	5.76	1.35	0.85
Average net revenue per domestic service customer....	26.21	34.06	25.46	27.30
Average net revenue per commercial light customer....	79.81	72.03	83.55	76.74
Average net revenue per small power customer .....	202.56	281.35	172.30	200.66
Average net revenue per large power customer .....	6,022.38	650.97	17,539.24	10,578.81
Average net revenue per kilowatt hour- Domestic and farm service .....	2.18	8.54	5.50	5.05
Average net revenue per kilowatt hour- Commercial light .....	2.61	7.53	5.54	3.7

(x) Affected by power purchased from another province.

TABLE 4 - REVENUE, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
\$	\$	\$	\$	\$	\$
519,739	x 48,877,280	6,207,956	4,236,991	x 4,483,415	9,892,781
795,948	16,262,707	2,743,877	1,775,697	1,728,351	3,357,638
491,794	7,302,940	1,313,469	1,078,180	1,094,633	2,030,080
203,010	3,506,699	387,975	585,971	629,092	377,819
831,161	19,778,214	1,540,123	519,748	769,207	3,712,562
197,826	2,026,720	222,512	277,395	262,132	414,682
331,547	10,206,153	3,026,889	1,532,188	2,252,367	9,289,920
84,457	1,191,560	125,014	145,560	48,428	2,367,541
247,090	9,014,593	2,901,875	1,386,628	2,203,939	6,922,379
234,276	9,007,281	2,842,872	...	1,621,240	6,792,656
12,814	7,312	59,003	1,386,628	582,699	129,723
188,192	38,671,127	3,181,067	2,704,803	2,231,048	602,861
182,845	11,368,263	602,722	466,540	815,845	332,135
005,347	27,302,864	2,578,345	2,238,263	1,415,203	270,720
748,662	27,252,386	2,376,202	...	26,507	215,447
256,685	50,478	202,143	2,238,263	1,388,696	55,279
267,302	12,559,823	727,736	612,100	864,273	2,699,676
252,437	36,317,457	5,480,220	3,624,891	3,619,142	7,193,105
982,938	36,259,667	5,219,074	...	1,647,747	7,008,103
269,499	57,790	261,146	3,624,891	1,971,395	185,002
14.53	(x)	14.10	31.29	(x)	17.57
14.40	(x)	13.12	31.29	(x)	16.14
16.93	(x)	17.50	36.86	(x)	22.68
16.78	(x)	16.17	36.86	(x)	20.68
0.46	1.12	0.58	3.23	2.45	0.80
20.24	27.18	37.62	40.07	30.15	26.30
74.77	82.81	85.69	78.14	67.09	90.61
190.26	249.82	149.62	210.10	162.01	132.66
112.28	8,099.19	664.71	6,496.85	2,797.12	2,104.63
3.25	1.77	1.00	4.89	5.83	3.07
3.20	2.11	1.38	6.36	4.81	2.93

TABLE 5 - EXPENSES, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	\$	\$	\$	\$
<u>Total Expenses</u> .....	73,051,651	108,518	2,547,881	1,398,073
Per cent of total for Canada .....	100.00	0.15	3.49	1.91
Salaries and wages .....	21,431,877	56,741	843,804	421,689
Fuel .....	1,845,928	40,155	535,693	131,099
Taxes .....	5,894,619	11,075	246,152	83,384
Cost of power .....	43,879,227	547	922,232	761,901
<u>Total for Commercial Stations</u> .....	29,169,633	92,172	1,931,496	756,569
Salaries and wages .....	9,399,862	48,496	544,147	257,731
Fuel .....	1,046,326	32,054	519,387	76,531
Taxes .....	5,372,581	11,075	245,386	82,928
Cost of power .....	13,350,864	547	622,576	339,379
Non-generating stations .....	6,635,548	822	1,083,794	473,591
Generating stations .....	22,534,085	91,350	847,702	282,978
Hydraulic stations .....	20,427,685	8,403	111,592	77,550
Fuel stations .....	2,106,400	82,947	736,110	205,428
<u>Total for Municipal Stations</u> .....	43,882,018	16,346	616,385	641,504
Salaries and wages .....	12,032,015	8,245	299,657	163,958
Fuel .....	799,602	8,101	16,306	54,568
Taxes .....	522,038	...	766	456
Cost of power .....	30,528,363	...	299,656	422,522
Non-generating stations .....	27,807,648	...	359,231	365,269
Generating stations .....	16,074,370	16,346	257,154	276,235
Hydraulic stations .....	14,092,667	...	196,712	209,459
Fuel stations .....	1,981,703	16,346	60,442	66,776
<u>Total Expenses for Non-generating Stations</u> .....	34,443,196	822	1,443,025	838,860
Salaries and wages .....	6,948,799	275	377,394	197,621
Fuel .....	5,912	...	1,486	...
Taxes .....	725,035	...	164,378	34,276
Cost of power .....	26,763,450	547	899,767	606,963
<u>Total Expenses for Generating Stations</u> .....	38,608,455	107,696	1,104,856	559,213
Salaries and wages .....	14,433,078	56,466	466,410	224,068
Fuel .....	1,840,016	40,155	534,207	131,099
Taxes .....	5,169,584	11,075	81,774	49,108
Cost of power .....	17,115,777	...	22,465	154,938
Hydraulic stations .....	34,520,352	8,403	308,304	287,009
Fuel stations .....	4,088,103	99,293	796,552	272,204



TABLE 5 - EXPENSES, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
\$	\$	\$	\$	\$	\$
13,722,261	41,753,721	3,123,939	2,532,147	1,980,187	5,884,924
18.78	57.16	4.28	3.47	2.71	8.05
4,613,591	10,648,827	1,368,166	809,432	866,511	1,803,116
14,599	47,182	68,944	793,682	166,832	47,742
2,906,877	1,275,040	232,764	127,465	173,621	838,241
6,187,194	29,782,672	1,454,065	801,568	773,223	3,195,825
13,236,165	4,632,720	1,491,697	777,890	675,662	5,575,262
4,384,490	1,285,887	489,135	290,496	401,519	1,697,961
2,474	3,804	14,142	296,246	70,404	31,284
2,895,624	971,731	147,334	82,781	97,481	838,241
5,953,577	2,371,298	841,086	108,367	106,258	3,007,776
47,948	1,026,643	220,258	97,010	34,965	3,650,517
13,188,217	3,606,077	1,271,439	680,880	640,697	1,924,745
13,182,789	3,602,912	1,237,093	...	344,758	1,862,588
5,428	3,165	34,346	680,880	295,939	62,157
486,096	37,121,001	1,632,242	1,754,257	1,304,525	309,662
229,101	9,362,940	879,031	518,936	464,992	105,155
12,125	43,378	54,802	497,436	96,428	16,458
11,253	303,309	85,430	44,684	76,140	...
233,617	27,411,374	612,979	693,201	666,965	188,049
165,805	24,788,150	347,817	776,623	775,716	229,037
320,291	12,332,851	1,284,425	977,634	528,809	80,625
117,739	12,317,997	1,189,463	...	9,520	51,777
202,552	14,854	94,962	977,634	519,289	28,848
213,753	25,814,793	568,075	873,633	810,681	3,879,554
46,335	4,983,067	199,754	97,456	184,174	862,723
...	22	2,670	...	...	1,734
760	122,001	13,207	48,027	57,263	285,123
166,658	20,709,703	352,444	728,150	569,244	2,729,974
13,508,508	15,938,928	2,555,864	1,658,514	1,169,506	2,005,370
4,567,256	5,665,760	1,168,412	711,976	682,337	940,393
14,599	47,160	66,274	793,682	166,832	46,008
2,906,117	1,153,039	219,557	79,438	116,358	553,118
6,020,536	9,072,969	1,101,621	73,418	203,979	465,851
13,300,528	15,920,909	2,426,556	...	354,278	1,914,365
207,980	18,019	129,308	1,658,514	815,228	91,005

TABLE 6 - EMPLOYEES, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Number of Persons Employed</u> .....	14,717	51	710	430
Per cent of total for Canada .....	100.00	0.35	4.82	2.92
Officers, clerks, other salaried employees, etc. ....	6,509	18	250	202
Employees on wages .....	8,208	33	460	228
<u>Total Employees in Commercial Stations</u> .....	6,821	44	430	253
Officers, clerks, other salaried employees, etc. ....	2,827	15	168	106
Employees on wages .....	3,994	29	262	147
Non-generating .....	987	1	229	117
Generating .....	5,834	43	201	136
Hydraulic .....	5,211	8	81	44
Fuel .....	623	35	120	92
<u>Total Employees in Municipal Stations</u> .....	7,896	7	280	177
Officers, clerks, other salaried employees, etc. ....	3,682	3	82	96
Employees on wages .....	4,214	4	198	81
Non-generating .....	3,980	..	78	68
Generating .....	3,916	7	202	109
Hydraulic .....	3,299	..	175	103
Fuel .....	617	7	27	6
<u>Total Employees in Non-generating Stations</u> ...	4,967	1	307	185
Officers, clerks, other salaried employees, etc. ....	2,657	..	152	95
Employees on wages .....	2,310	1	155	90
<u>Total Employees in Generating Stations</u> .....	9,750	50	403	245
Officers, clerks, other salaried employees, etc. ....	3,852	18	98	107
Employees on wages .....	5,898	32	305	138
Hydraulic .....	8,510	8	256	147
Fuel .....	1,240	42	147	98

TABLE 6 - EMPLOYEES, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,274	6,780	1,020	556	622	1,274
22.25	46.07	6.93	3.78	4.23	8.65
1,315	3,060	537	253	290	584
1,959	3,720	483	303	332	690
3,089	943	354	234	297	1,177
1,237	345	162	128	151	515
1,852	598	192	106	146	662
20	33	11	15	8	553
3,069	910	343	219	289	624
3,066	907	323	...	183	599
3	3	20	219	106	25
185	5,837	666	322	325	97
78	2,715	375	125	139	69
107	3,122	291	197	186	28
32	3,433	142	54	130	43
153	2,404	524	268	195	54
93	2,396	482	...	8	42
60	8	42	268	187	12
52	3,466	153	69	138	596
40	1,789	96	40	75	370
12	1,677	57	29	63	226
3,222	3,314	867	487	484	678
1,275	1,271	441	213	215	214
1,947	2,043	426	274	269	464
3,159	3,303	805	...	191	641
63	11	62	487	293	37



TABLE 7 - NUMBER OF CUSTOMERS, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Number of Customers</u> .....	1,666,882	5,088	57,189	41,905
<u>Per cent of total for Canada</u> .....	100.00	0.31	3.43	2.51
Domestic service .....	1,371,806	3,970	47,124	34,959
Commercial light .....	244,283	971	8,066	5,756
Power (small) .....	40,641	106	1,796	1,010
Power (large) .....	8,160	30	119	143
Street lighting .....	1,992	11	84	37
<u>Total Number of Customers of Commercial Stations</u> .....	776,581	4,168	37,910	21,472
Domestic service .....	622,416	3,283	31,386	17,141
Commercial light .....	129,743	774	5,319	3,584
Power (small) .....	19,247	73	1,077	682
Power (large) .....	3,975	29	74	45
Street lighting .....	1,200	9	54	20
Non-generating .....	159,168	48	29,869	13,351
Generating .....	617,413	4,120	8,041	8,121
Hydraulic .....	569,389	737	5,142	261
Fuel .....	48,024	3,383	2,899	7,860
<u>Total Number of Customers of Municipal Stations</u> .....	890,301	920	19,279	20,433
Domestic service .....	749,390	687	15,738	17,818
Commercial light .....	114,540	197	2,747	2,172
Power (small) .....	21,394	33	719	328
Power (large) .....	4,185	1	45	98
Street lighting .....	792	2	30	17
Non-generating .....	664,390	...	13,639	13,013
Generating .....	225,911	920	5,640	7,420
Hydraulic .....	156,740	...	2,772	6,047
Fuel .....	69,171	920	2,868	1,373
<u>Total Number of Customers of Non-generating Stations</u> ...	823,558	48	43,508	26,364
Domestic service .....	688,037	34	36,150	21,828
Commercial light .....	113,169	6	5,873	3,863
Power (small) .....	18,268	7	1,393	559
Power (large) .....	3,500	...	53	89
Street lighting .....	584	1	39	25
<u>Total Number of Customers of Generating Stations</u> .....	843,324	5,040	13,681	15,541
<u>Hydraulic Stations</u> .....	726,129	737	7,914	6,308
Domestic service .....	596,705	635	6,386	5,806
Commercial light .....	106,522	99	1,213	400
Power (small) .....	17,554	..	238	68
Power (large) .....	4,306	..	43	27
Street lighting .....	1,042	3	34	7
<u>Fuel Stations</u> .....	117,195	4,303	5,767	9,233
Domestic service .....	87,064	3,301	4,588	7,325
Commercial light .....	24,592	866	980	1,493
Power (small) .....	4,819	99	165	383
Power (large) .....	354	30	23	27
Street lighting .....	366	7	11	5
<u>Average number of domestic service customers per 100 of population</u> .....	12.84	4.46	9.03	8.32

TABLE 7 - NUMBER OF CUSTOMERS, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
471,874	703,550	93,276	61,266	77,993	154,741
28.31	42.21	5.59	3.68	4.68	9.28
385,175	598,347	72,935	44,319	57,330	127,647
73,451	88,192	15,329	13,798	16,315	22,405
11,579	14,037	2,593	2,789	3,883	2,848
990	2,442	2,317	80	275	1,764
679	532	102	280	190	77
439,427	59,258	28,024	22,775	25,261	138,286
356,159	48,975	20,087	15,722	15,742	113,921
70,886	8,630	6,608	6,090	7,465	20,387
10,795	1,318	481	779	1,818	2,224
938	275	827	31	63	1,693
649	60	21	153	173	61
2,579	3,639	5,666	2,721	1,155	100,140
436,848	55,619	22,358	20,054	24,106	38,146
436,652	55,407	21,279	...	14,155	35,756
196	212	1,079	20,054	9,951	2,390
32,447	644,292	65,252	38,491	52,732	16,455
29,016	549,372	52,848	28,597	41,588	13,726
2,565	79,562	8,721	7,708	8,850	2,018
784	12,719	2,112	2,010	2,065	624
52	2,167	1,490	49	212	71
30	472	81	127	17	16
10,711	563,994	12,232	14,138	24,902	11,761
21,736	80,298	53,020	24,353	27,830	4,694
14,537	79,527	49,481	...	755	3,621
7,199	771	3,539	24,353	27,075	1,073
13,290	567,633	17,898	16,859	26,057	111,901
11,581	476,520	14,575	12,418	21,724	93,207
1,401	77,214	2,598	3,459	3,344	15,411
258	11,951	567	898	933	1,702
12	1,640	86	30	42	1,548
38	308	72	54	14	33
458,584	135,917	75,378	44,407	51,936	42,840
451,189	134,934	70,760	...	14,910	39,377
366,888	120,984	55,031	...	9,107	31,258
71,602	10,858	11,718	...	4,407	6,225
11,091	2,070	1,774	...	1,272	1,041
970	800	2,227	...	27	212
638	222	10	...	91	21
7,395	983	4,618	44,407	37,026	3,463
6,706	843	3,329	31,901	26,499	2,572
448	120	1,013	10,339	8,564	769
230	16	252	1,891	1,678	105
8	2	4	50	206	4
3	2	20	226	79	13
12.97	16.98	10.10	4.66	7.57	17.83

TABLE 8 - POLE LINE MILEAGE, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Pole Line Mileage</u> .....	56,570	207	2,426	1,728
Per cent of total for Canada .....	100.00	0.37	4.29	3.05
For transmission .....	17,504	...	611	472
For distribution .....	39,066	207	1,815	1,256
<u>Total Pole Line Mileage in Commercial Stations</u> .....	25,129	189	1,409	619
Non-generating .....	4,037	7	637	245
Generating .....	21,092	182	772	374
Hydraulic .....	18,673	59	578	153
Fuel .....	2,419	123	194	221
<u>Total Pole Line Mileage in Municipal Stations</u> .....	31,441	18	1,017	1,109
Non-generating .....	8,908	...	350	224
Generating .....	22,533	18	667	885
Hydraulic .....	19,976	...	616	687
Fuel .....	2,557	18	51	198
<u>Total Pole Line Mileage in Non-generating Stations</u> .....	12,945	7	987	469
<u>Total Pole Line Mileage in Generating Stations</u> .....	43,625	200	1,439	1,259
Hydraulic .....	38,649	59	1,194	840
Fuel .....	4,976	141	245	419

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1933

<u>Total Primary Power</u> .....	H.P.	193,569	165	11,943	6,125
Per cent of total for Canada .....		100.00	0.09	6.17	3.16
Steam reciprocating engines .....	No.	46	1	9	8
Total capacity .....	H.P.	19,984	75	3,988	1,950
Steam turbines .....	No.	46	..	3	4
Total capacity .....	H.P.	164,571	..	7,370	3,600
Gas and oil engines .....	No.	49	2	5	3
Total capacity .....	H.P.	9,014	90	585	575
<u>Total Secondary Power</u> .....	K.V.A.	164,732	48	10,127	4,453
<u>Commercial Stations</u>					
<u>Total Primary Power</u> .....	H.P.	135,590	165	11,100	5,225
Steam reciprocating engines .....	No.	30	1	7	6
Total capacity .....	H.P.	12,855	75	3,565	1,575
Steam turbines .....	No.	37	..	3	4
Total capacity .....	H.P.	117,381	..	7,370	3,600
Gas and oil engines .....	No.	28	2	1	1
Total capacity .....	H.P.	5,354	90	165	50
<u>Total Secondary Power</u> .....	K.V.A.	116,433	48	9,466	3,856
<u>Municipal Stations</u>					
<u>Total Primary Power</u> .....	H.P.	57,979	...	843	900
Steam reciprocating engines .....	No.	16	...	2	2
Total capacity .....	H.P.	7,129	...	423	375
Steam turbines .....	No.	9	...	...	...
Total capacity .....	H.P.	47,190	...	...	...
Gas and oil engines .....	No.	21	...	4	2
Total capacity .....	H.P.	3,660	...	420	525
<u>Total Secondary Power</u> .....	K.V.A.	48,299	...	661	597



TABLE 8 - POLE LINE MILEAGE, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
11,122	25,846	3,279	3,544	3,769	4,649
19.66	45.69	5.80	6.26	6.66	8.22
4,880	3,836	1,793	2,375	2,241	1,296
6,242	22,010	1,485	1,169	1,528	3,353
10,710	2,307	1,180	1,583	3,005	4,127
214	180	189	648	32	1,885
10,496	2,127	991	935	2,973	2,242
10,485	2,120	919	...	2,224	2,135
11	7	72	935	749	107
412	23,539	2,099	1,961	764	522
129	5,971	1,314	179	372	369
283	17,568	785	1,782	392	153
252	17,545	728	...	16	132
31	23	57	1,782	376	21
343	6,151	1,503	827	404	2,254
10,779	19,695	1,776	2,717	3,365	2,395
10,737	19,665	1,647	...	2,240	2,267
42	30	129	2,717	1,125	128

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1933

27,823	42,371	32,921	...	22,070	50,151
14.37	21.89	17.01	...	11.40	25.91
3	9	3	...	10	3
2,250	3,100	3,206	...	4,440	975
6	6	7	...	5	15
25,500	36,500	28,840	...	16,250	46,511
3	8	8	...	7	13
73	2,771	875	...	1,380	2,665
24,478	35,148	29,250	...	19,168	42,060
27,823	9,271	12,000	...	21,130	48,876
3	3	...	...	9	1
2,250	950	...	...	3,990	450
6	2	3	...	5	14
25,500	6,300	12,000	...	16,250	46,361
3	5	...	...	4	12
73	2,021	...	...	890	2,065
24,478	7,928	11,250	...	18,390	41,017
...	33,100	20,921	...	940	1,275
...	6	3	...	1	2
...	2,150	3,206	...	450	525
...	4	4	...	...	1
...	30,200	16,840	...	...	150
...	3	8	...	3	1
...	750	875	...	490	600
...	27,220	18,000	...	778	1,043

TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Primary Power</u> ..... H.P.	6,809,575	5,692	155,901	136,970
Per cent of total for Canada .....	100.00	0.08	2.29	2.01
<u>Water wheels and turbines</u> ..... No.	814	9	55	16
Total capacity ..... H.P.	6,305,997	464	81,616	105,485
<u>Steam reciprocating engines</u> ..... No.	103	1	10	13
Total capacity ..... H.P.	32,359	75	4,063	5,015
<u>Steam turbines</u> ..... No.	112	3	18	9
Total capacity ..... H.P.	435,094	4,173	69,038	25,300
<u>Gas and oil engines</u> ..... No.	383	7	17	9
Total capacity ..... H.P.	36,125	980	1,184	1,170
<u>Total Dynamo Capacity</u> ..... K.V.A.	5,656,417	4,977	129,914	115,289
Per cent of total for Canada .....	100.00	0.09	2.30	2.04
Dynamos, A.C. .... No.	1,177	16	94	41
Total capacity ..... K.V.A.	5,649,254	4,969	129,524	114,101
Dynamos, D.C. .... No.	211	1	6	7
Total capacity ..... K.W.	7,163	8	390	1,128
<u>Commercial Stations</u>				
<u>Total Primary Power</u> ..... H.P.	4,842,686	4,802	85,495	114,835
Water wheels and turbines ..... No.	553	9	19	10
Total capacity ..... H.P.	4,563,973	464	15,106	92,650
Steam reciprocating engines ..... No.	61	1	8	11
Total capacity ..... H.P.	19,145	75	3,640	4,640
Steam turbines ..... No.	68	3	15	7
Total capacity ..... H.P.	238,129	4,173	66,380	17,300
Gas and oil engines ..... No.	286	2	7	5
Total capacity ..... H.P.	21,439	90	369	245
<u>Total Dynamo Capacity</u> ..... K.V.A.	4,072,908	4,212	71,692	97,779
Dynamos, A.C. .... No.	758	11	43	26
Total capacity ..... K.V.A.	4,067,737	4,204	71,302	96,651
Dynamos, D.C. .... No.	190	1	6	7
Total capacity ..... K.W.	5,171	8	390	1,128
<u>Municipal Stations</u>				
<u>Total Primary Power</u> ..... H.P.	1,966,889	890	70,406	22,135
Water wheels and turbines ..... No.	261	...	36	6
Total capacity ..... H.P.	1,742,024	...	66,510	12,835
Steam reciprocating engines ..... No.	42	...	2	2
Total capacity ..... H.P.	13,214	...	423	375
Steam turbines ..... No.	44	...	3	2
Total capacity ..... H.P.	196,965	...	2,658	8,000
Gas and oil engines ..... No.	97	5	10	4
Total capacity ..... H.P.	14,686	890	815	925
<u>Total Dynamo Capacity</u> ..... K.V.A.	1,583,509	765	58,222	17,450
Dynamos, A.C. .... No.	419	5	51	15
Total capacity ..... K.V.A.	1,581,517	765	58,222	17,450
Dynamos, D.C. .... No.	21	...	...	...
Total capacity ..... K.W.	1,992	...	...	...

TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,091,258 45.40	2,046,895 30.06	473,216 6.95	135,398 1.99	151,139 2.22	613,106 9.00
264 3,048,405 3 2,250 11 40,370 5 233	337 2,003,426 19 3,668 6 36,500 11 3,301	40 436,925 11 4,341 8 29,240 38 2,710	... ... 5 2,468 23 115,162 186 17,768	18 69,520 29 8,689 18 68,300 73 4,630	75 560,156 12 1,790 16 47,011 37 4,149
2,653,444 46.91 281 2,652,913 4 531	1,651,526 29.20 354 1,650,867 8 659	383,996 6.79 82 383,786 12 270	114,947 2.03 104 113,750 106 1,197	124,110 2.19 82 121,426 50 2,684	478,274 8.45 123 477,978 17 296
3,047,758 241 3,019,770 3 2,250 7 25,625 4 113	518,681 171 509,237 7 1,123 2 6,300 5 2,021	320,481 21 307,800 1 30 3 12,000 16 651	49,884 ... ... 2 1,118 9 37,940 146 10,826	99,489 16 68,560 22 5,394 7 21,550 67 3,985	601,261 66 550,386 6 875 15 46,861 34 3,139
2,616,550 252 2,616,019 4 531	439,082 174 438,897 6 185	253,857 32 253,807 6 50	40,866 59 39,817 95 1,049	79,068 57 77,534 48 1,534	469,802 104 469,506 17 296
43,500 23 28,635 ... ... 4 14,745 1 120	1,528,214 166 1,494,189 12 2,545 4 30,200 6 1,280	152,735 19 129,125 10 4,311 5 17,240 22 2,059	85,514 ... ... 3 1,350 14 77,222 40 6,942	51,650 2 960 7 3,295 11 46,750 6 645	11,845 9 9,770 6 915 1 150 3 1,010
36,894 29 36,894 ... ...	1,212,444 180 1,211,970 2 474	130,139 50 129,919 6 220	74,081 45 73,933 11 148	45,042 25 43,892 2 1,150	8,472 19 8,472 ... ...



TABLE 11 - MAIN PLANT EQUIPMENT, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Primary Power</u> .....H.P.	6,616,006	5,527	143,958	130,845
Per cent of total for Canada .....	100.00	0.08	2.18	1.98
Water wheels and turbines .....No.	814	9	55	16
Total capacity .....H.P.	6,305,997	464	81,616	105,485
Steam reciprocating engines .....No.	57	...	1	5
Total capacity .....H.P.	12,375	...	75	3,065
Steam turbines .....No.	66	3	15	5
Total capacity .....H.P.	270,523	4,173	61,668	21,700
Gas and oil engines .....No.	334	5	12	6
Total capacity .....H.P.	27,111	890	599	595
<u>Total Dynamo Capacity</u> .....K.V.A.	5,491,685	4,929	119,787	110,776
Per cent of total for Canada .....	100.00	0.09	2.18	2.02
Dynamos, A.C. ....No.	1,052	15	78	26
Total capacity .....K.V.A.	5,486,618	4,921	119,697	109,881
Dynamos, D.C. ....No.	204	1	5	6
Total capacity .....K.W.	5,067	8	90	895
<u>Commercial Stations</u>				
<u>Total Primary Power</u> .....H.P.	4,707,096	4,637	74,395	109,610
Per cent of total for Canada .....	100.00	0.10	1.58	2.33
Water wheels and turbines .....No.	553	9	19	10
Total capacity .....H.P.	4,563,973	464	15,106	92,650
Steam reciprocating engines .....No.	31	...	1	5
Total capacity .....H.P.	6,290	...	75	3,065
Steam turbines .....No.	31	3	12	3
Total capacity .....H.P.	120,748	4,173	59,010	13,700
Gas and oil engines .....No.	258	...	6	4
Total capacity .....H.P.	16,085	...	204	195
<u>Total Dynamo Capacity</u> .....K.V.A.	3,956,475	4,164	62,226	93,923
Per cent of total for Canada .....	100.00	0.11	1.57	2.37
Dynamos, A.C. ....No.	676	10	33	16
Total capacity .....K.V.A.	3,952,950	4,156	62,136	93,028
Dynamos, D.C. ....No.	184	1	5	6
Total capacity .....K.W.	3,525	8	90	895
<u>Municipal Stations</u>				
<u>Total Primary Power</u> .....H.P.	1,908,910	890	69,563	21,235
Per cent of total for Canada .....	100.00	0.05	3.64	1.11
Water wheels and turbines .....No.	261	...	36	6
Total capacity .....H.P.	1,742,024	...	66,510	12,835
Steam reciprocating engines .....No.	26	...	...	...
Total capacity .....H.P.	6,085	...	...	...
Steam turbines .....No.	35	...	3	2
Total capacity .....H.P.	149,775	...	2,658	8,000
Gas and oil engines .....No.	76	5	6	2
Total capacity .....H.P.	11,026	890	395	400
<u>Total Dynamo Capacity</u> .....K.V.A.	1,535,210	765	57,561	16,853
Per cent of total for Canada .....	100.00	0.05	3.75	1.10
Dynamos, A.C. ....No.	376	5	45	10
Total capacity .....K.V.A.	1,533,668	765	57,561	16,853
Dynamos, D.C. ....No.	20	...	...	...
Total capacity .....K.W.	1,542	...	...	...
<u>Hydraulic Stations</u>				
<u>Total Dynamo Capacity</u> .....K.V.A.	5,229,372	414	68,017	91,163
Per cent of total for Canada .....	100.00	0.01	1.30	1.74
Dynamos, A.C. ....No.	797	7	55	15
Total capacity .....K.V.A.	5,228,563	406	68,017	91,038
Dynamos, D.C. ....No.	11	1	...	1
Total capacity .....K.W.	809	8	...	125
<u>Fuel Stations</u>				
<u>Total Dynamo Capacity</u> .....K.V.A.	262,313	4,515	51,770	19,613
Per cent of total for Canada .....	100.00	1.72	19.74	7.48
Dynamos, A.C. ....No.	255	8	23	11
Total capacity .....K.V.A.	258,055	4,515	51,680	18,843
Dynamos, D.C. ....No.	193	...	5	5
Total capacity .....K.W.	4,258	...	90	770

TABLE 11 - MAIN PLANT EQUIPMENT, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,063,435 46.30	2,004,524 30.30	x 440,295 6.65	135,398 2.05	129,069 1.95	562,955 8.51
264 3,048,405 ... ... 5 14,870 2 160	337 2,003,426 10 568 ... ... 3 530	40 426,925 8 1,135 1 400 30 1,835	... ... 5 2,468 23 115,162 186 17,768	18 69,520 19 4,249 13 52,050 66 3,250	75 560,156 9 815 1 500 24 1,484
2,628,966 47.87 271 2,628,435 4 531	1,616,378 29.43 336 1,616,169 7 209	354,746 6.46 65 354,476 12 270	114,947 2.09 104 113,750 106 1,197	104,942 1.91 61 103,358 48 1,584	436,214 7.95 96 435,931 15 283
3,019,935 64.16 241 3,019,770 ... ... 1 125 1 40	509,410 10.82 171 509,237 4 173 ... ... ... ...	308,431 6.55 21 307,800 1 30 ... ... 16 651	49,884 1.06 ... ... 2 1,118 9 37,940 146 10,826	78,359 1.66 16 68,560 13 1,404 2 5,300 63 3,095	552,385 11.74 66 550,386 5 425 1 500 22 1,074
2,592,072 65.52 242 2,591,541 4 531	431,154 10.90 165 430,969 6 185	242,607 6.13 29 242,557 6 50	40,866 1.03 59 39,817 95 1,049	60,678 1.53 41 60,244 46 434	428,785 10.84 81 428,502 15 283
43,500 2.28 23 28,635 ... ... 4 14,745 1 120	1,495,114 78.32 166 1,494,189 6 395 ... ... 3 530	131,814 6.91 19 129,125 7 1,105 1 400 14 1,184	85,514 4.48 ... ... 3 1,350 14 77,222 40 6,942	50,710 2.66 2 960 6 2,845 11 46,750 3 155	10,570 0.55 9 9,770 4 390 ... ... 2 410
36,894 2.40 29 36,894 ... ...	1,185,224 77.20 171 1,185,200 1 24	112,139 7.31 36 111,919 6 220	74,081 4.83 45 73,933 11 148	44,264 2.88 20 43,114 2 1,150	7,429 .48 15 7,429 ... ...
2,614,971 50.01 264 2,614,440 4 531	1,615,549 30.89 327 1,615,474 3 75	351,912 6.73 40 351,912 ... ...	... ... ... ... ... ...	53,200 1.02 14 53,200 ... ...	434,146 8.30 75 434,076 2 70
13,995 5.33 7 13,995 ... ...	829 0.32 9 695 4 134	2,834 1.08 25 2,564 12 270	114,947 43.82 104 113,750 106 1,197	51,742 19.72 47 50,158 48 1,584	2,068 0.79 21 1,855 13 213

Capacity of one hydraulic station in Saskatchewan included in Manitoba.

TABLE 12 - MAIN PLANT EQUIPMENT CLASSIFIED, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>Primary Power</b> ..... H.P.	6,616,006	5,527	143,958	130,845	3,063,435
<b>Water wheels and turbines</b> ..... No.	814	9	55	16	264
..... Total H.P.	6,305,997	464	81,616	105,485	3,048,405
<b>Under 500 H.P.</b> ..... No.	158	9	24	3	24
..... Total H.P.	30,483	464	5,416	935	3,886
<b>500 - 2,000 H.P.</b> ..... No.	216	...	17	2	73
..... Total H.P.	243,839	...	19,860	2,050	81,619
<b>2,000 - 5,000 H.P.</b> ..... No.	125	...	10	6	35
..... Total H.P.	371,525	...	33,040	17,500	100,950
<b>5,000 - 10,000 H.P.</b> ..... No.	106	...	4	1	36
..... Total H.P.	696,450	...	23,300	5,000	249,450
<b>10,000 - 15,000 H.P.</b> ..... No.	76	...	...	...	28
..... Total H.P.	883,300	...	...	...	302,100
<b>15,000 - 25,000 H.P.</b> ..... No.	56	...	...	4	17
..... Total H.P.	1,030,500	...	...	80,000	352,500
<b>25,000 and up</b> ..... No.	77	...	...	...	51
..... Total H.P.	3,049,900	...	...	...	1,957,900
<b>Steam reciprocating engines</b> ..... No.	57	...	1	5	...
..... Total H.P.	12,375	...	75	3,065	...
<b>Under 500 H.P.</b> ..... No.	49	...	1	2	...
..... Total H.P.	5,315	...	75	165	...
<b>500 H.P. and up</b> ..... No.	8	...	...	3	...
..... Total H.P.	7,060	...	...	2,900	...
<b>Steam turbines</b> ..... No.	66	3	15	5	5
..... Total H.P.	270,523	4,173	61,668	21,700	14,870
<b>Under 500 H.P.</b> ..... No.	4	...	1	...	1
..... Total H.P.	1,327	...	402	...	125
<b>500 - 2,000 H.P.</b> ..... No.	17	2	4	1	1
..... Total H.P.	18,237	2,173	4,846	700	1,340
<b>2,000 - 5,000 H.P.</b> ..... No.	27	1	5	3	1
..... Total H.P.	80,961	2,000	14,720	11,000	2,681
<b>5,000 - 10,000 H.P. and up</b> ..... No.	18	...	5	1	2
..... Total H.P.	169,998	...	41,700	10,000	10,724
<b>Gas and oil engines</b> ..... No.	334	5	12	6	2
..... Total H.P.	27,111	890	599	595	160
<b>Secondary Power</b>					
<b>Dynamos, A.C. and D.C.</b> ..... No.	1,256	16	83	32	275
..... Total K.V.A.	5,491,685	4,929	119,787	110,776	2,628,966
<b>Dynamos, A.C.</b> ..... No.	1,052	15	78	26	271
..... Total K.V.A.	5,486,618	4,921	119,697	109,881	2,628,435
<b>Under 50 K.V.A.</b> ..... No.	70	4	6	...	5
..... Total K.V.A.	2,132	133	226	...	175
<b>50 - 200 K.V.A.</b> ..... No.	159	7	15	5	12
..... Total K.V.A.	17,534	738	1,458	656	1,239
<b>200 - 500 K.V.A.</b> ..... No.	125	1	14	1	20
..... Total K.V.A.	38,729	300	4,413	375	6,897
<b>500 - 1,000 K.V.A.</b> ..... No.	139	1	9	4	44
..... Total K.V.A.	103,227	625	6,705	2,875	34,040
<b>1,000 - 5,000 K.V.A.</b> ..... No.	265	2	28	11	66
..... Total K.V.A.	609,450	3,125	67,220	28,475	147,420
<b>5,000 - 10,000 K.V.A.</b> ..... No.	111	...	6	1	25
..... Total K.V.A.	763,367	...	39,675	7,500	156,900
<b>10,000 - 15,000 K.V.A.</b> ..... No.	68	...	...	...	31
..... Total K.V.A.	734,165	...	...	...	318,000
<b>15,000 - 25,000 K.V.A.</b> ..... No.	54	...	...	4	20
..... Total K.V.A.	1,019,500	...	...	70,000	403,250
<b>25,000 and up</b> ..... No.	61	...	...	...	48
..... Total K.V.A.	2,198,514	...	...	...	1,560,514
<b>Dynamos, D.C.</b> ..... No.	204	1	5	6	4
..... Total K.W.	5,067	8	90	895	531
<b>Under 50 K.W.</b> ..... No.	192	1	4	3	3
..... Total K.W.	2,242	8	40	45	31
<b>50 - 200 K.W.</b> ..... No.	8	...	1	2	...
..... Total K.W.	525	...	50	200	...
<b>200 - 500 K.W.</b> ..... No.	1	...	...	...	...
..... Total K.W.	400	...	...	...	...
<b>500 and up</b> ..... No.	3	...	...	1	1
..... Total K.W.	1,900	...	...	650	500



TABLE 12 - MAIN PLANT EQUIPMENT CLASSIFIED, 1933

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal
2,004,524	440,295	135,398	129,069	562,955	4,707,096	1,908,910
337	40	...	18	75	553	261
2,003,426	436,925	...	69,520	560,156	4,563,973	1,742,024
68	1	...	10	19	106	52
14,051	125	...	1,920	3,686	17,994	12,489
115	...	...	...	9	127	89
129,040	...	...	...	11,270	140,154	103,685
56	4	...	2	12	90	35
163,035	12,800	...	8,000	36,200	271,475	100,050
29	21	...	4	11	74	32
186,100	130,000	...	23,600	79,000	500,350	196,100
35	5	...	...	8	57	19
417,700	66,000	...	...	97,500	647,100	236,200
18	3	...	2	12	38	18
289,500	60,000	...	36,000	212,500	741,000	289,500
16	6	...	...	4	61	16
804,000	168,000	...	...	120,000	2,245,900	804,000
10	8	5	19	9	31	26
568	1,135	2,468	4,249	815	6,290	6,085
10	8	3	16	9	27	22
568	1,135	618	1,939	815	2,290	3,025
...	...	2	3	...	4	4
...	...	1,850	2,310	...	4,000	3,060
...	1	23	13	1	31	35
...	400	115,162	52,050	500	120,748	149,775
...	1	1	...	...	1	3
...	400	400	...	...	125	1,202
...	...	6	2	1	9	8
...	...	6,678	2,000	500	9,471	8,766
...	...	9	8	...	13	14
...	...	26,210	24,350	...	36,186	44,775
...	...	7	3	...	8	10
...	...	81,874	25,700	...	74,966	95,032
3	30	186	66	24	258	76
530	1,835	17,768	3,250	1,484	16,085	11,026
343	77	210	109	111	860	396
1,616,378	354,746	114,947	104,942	436,214	3,956,475	1,535,210
336	65	104	61	96	676	376
1,616,169	354,476	113,750	103,358	435,931	3,952,950	1,533,668
8	10	18	9	10	46	24
223	265	626	227	257	1,399	733
32	11	37	19	21	99	60
3,888	1,054	4,377	1,843	2,281	10,382	7,152
41	5	22	11	10	62	63
12,501	1,557	6,781	3,075	2,830	18,490	20,239
65	...	7	3	6	85	54
48,140	...	4,466	2,088	4,288	62,932	40,295
99	14	13	14	18	173	92
201,785	46,350	28,750	42,375	43,950	401,913	207,537
48	11	4	2	14	66	45
354,592	70,750	25,000	11,250	97,700	451,005	312,362
23	5	2	1	6	51	17
247,040	56,000	25,000	12,500	75,625	555,565	178,600
8	9	1	2	10	45	9
154,000	178,500	18,750	30,000	165,000	846,750	172,750
12	...	...	...	1	49	12
594,000	...	...	...	44,000	1,604,514	594,000
7	12	106	48	15	184	20
209	270	1,197	1,584	283	3,525	1,542
4	10	106	46	15	176	16
59	145	1,197	434	283	1,975	267
3	2	...	...	...	6	2
150	125	...	...	...	400	125
...	...	...	1	...	...	1
...	...	...	400	...	...	400
...	...	...	1	...	2	1
...	...	...	750	...	1,150	750

TABLE 13 - ELECTRIC ENERGY GENERATED, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>ALL STATIONS</u>				
Total kilowatt hours generated .....(thousands)	17,338,990	4,765	330,436	378,687
Per cent of total for Canada .....	100.00	0.03	1.91	2.18
Kilowatt hours generated by non-generating stations .....(thousands)	311	...	56	...
Kilowatt hours generated by generating stations .....(thousands)	17,338,679	4,765	330,380	378,687
K.V.A. capacity of generating stations .....	5,633,107	4,977	120,125	110,776
Ratio of output to maximum capacity .....p.c.	35.9	10.9	31.4	39.0
Average kilowatt hours per K.V.A. ....	3,078	957	2,750	3,418
<u>GENERATING STATIONS</u>				
<u>Commercial Stations</u>				
<u>Total</u>				
Kilowatt hours generated .....(thousands)	13,665,919	4,062	134,169	340,056
K.V.A. capacity .....	4,058,330	4,212	62,439	93,923
Ratio of output to maximum capacity ..... p.c.	39.0	11.0	24.5	41.3
Average kilowatt hours per K.V.A. ....	3,367	964	2,149	3,621
<u>Hydraulic Stations</u>				
Kilowatt hours generated .....(thousands)	13,487,752	348	27,802	322,116
K.V.A. capacity .....	3,940,711	462	13,049	80,900
Ratio of output to maximum capacity ..... p.c.	39.6	8.6	24.3	45.5
Average kilowatt hours per K.V.A. ....	3,423	753	2,131	3,982
<u>Fuel Stations</u>				
Kilowatt hours generated .....(thousands)	178,167	3,714	106,367	17,940
K.V.A. capacity .....	117,619	3,750	49,390	13,023
Ratio of output to maximum capacity .....p.c.	17.3	11.3	24.6	15.7
Average kilowatt hours per K.V.A. ....	1,515	990	2,154	1,378
<u>Municipal Stations</u>				
<u>Total</u>				
Kilowatt hours generated .....(thousands)	3,672,760	703	196,211	38,631
K.V.A. capacity .....	1,574,777	765	57,686	16,853
Ratio of output to maximum capacity ..... p.c.	27.8	10.5	38.8	26.2
Average kilowatt hours per K.V.A. ....	2,332	919	3,401	2,292
<u>Hydraulic Stations</u>				
Kilowatt hours generated .....(thousands)	3,519,994	...	194,833	25,996
K.V.A. capacity .....	1,430,083	...	55,306	10,263
Ratio of output to maximum capacity ..... p.c.	29.4	...	40.2	28.9
Average kilowatt hours per K.V.A. ....	2,461	...	3,523	2,533
<u>Fuel Stations</u>				
Kilowatt hours generated .....(thousands)	152,766	703	1,378	12,635
K.V.A. capacity .....	144,694	765	2,380	6,590
Ratio of output to maximum capacity .....p.c.	12.5	10.5	6.6	21.9
Average kilowatt hours per K.V.A. ....	1,056	919	579	1,918
<u>Total Hydraulic Stations</u>				
Kilowatt hours generated .....(thousands)	17,007,746	348	222,635	348,112
K.V.A. capacity .....	5,370,794	462	68,355	91,163
Ratio of output to maximum capacity ..... p.c.	37.0	8.6	37.2	43.6
Average kilowatt hours per K.V.A. ....	3,167	753	3,257	3,819
Kilowatt hours generated by water power.....(thousands)	17,006,069	319	222,513	348,112
Kilowatt hours generated by auxiliary plants (thousands)	1,677	29	122	...
<u>Total Fuel Stations</u>				
Kilowatt hours generated .....(thousands)	330,933	4,417	107,745	30,575
K.V.A. capacity .....	262,313	4,515	51,770	19,613
Ratio of output to maximum capacity .....p.c.	14.7	11.2	23.8	17.8
Average kilowatt hours per K.V.A. ....	1,262	978	2,081	1,559
<u>CONSUMPTION OF ELECTRIC ENERGY (Thousands of Kilowatt Hours)</u>				
Total kilowatt hours generated .....	17,338,990	4,765	330,436	378,687
Kilowatt hours imported from the United States .....	608	...	...	63
Kilowatt hours imported from other provinces .....	...	...	...	5,190
Kilowatt hours exported to the United States .....	983,561	...	...	11,661
Kilowatt hours exported to other provinces .....	...	...	...	...
Kilowatt hours for consumption in Canada .....	16,356,037	4,765	330,436	372,279
Domestic service .....	1,650,395	1,584	21,800	18,740
Commercial light .....	746,555	929	12,165	11,727
Small power .....	389,761	478	10,341	5,508
Large power .....	9,774,213	718	252,705	305,276
Street lighting .....	184,765	251	4,340	2,888
Free service (other than street lighting) ....	16,650	...	88	256
Losses .....	3,593,698	805	28,997	27,884

TABLE 13 - ELECTRIC ENERGY GENERATED, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
9,611,084 55.43 ...	4,381,094 25.27 2	1,077,210 6.21 151	131,164 .76 ...	182,963 1.05 ...	1,241,587 7.16 102
9,611,084 2,653,444 42.3 3,622	4,381,092 1,648,167 31.6 2,658	1,077,059 379,746 32.4 2,836	131,164 114,947 13.0 1,141	182,963 123,332 16.9 1,483	1,241,485 477,593 29.7 2,599
9,568,620 2,616,550 42.7 3,657	1,535,671 437,763 40.0 3,508	676,053 253,857 30.4 2,663	36,477 40,866 10.2 893	142,850 79,068 20.6 1,807	1,227,961 469,652 29.9 2,615
9,568,507 2,616,410 42.7 3,657	1,535,597 437,638 40.1 3,509	675,426 253,350 30.4 2,666	... ... ... ...	132,040 70,740 21.3 1,867	1,225,916 468,162 29.9 2,619
113 140 9.2 807	74 125 6.8 592	627 507 14.1 1,237	36,477 40,866 10.2 893	10,810 8,328 14.8 1,298	2,045 1,490 15.7 1,372
42,464 36,894 15.2 1,151	2,845,421 1,210,404 28.3 2,351	401,006 125,889 36.4 3,185	94,687 74,081 14.6 1,278	40,113 44,604 10.3 906	15,524 7,941 19.4 1,703
41,945 23,039 20.8 1,821	2,844,760 1,209,700 28.3 2,352	398,293 123,562 36.8 3,223	... ... ... ...	1,440 850 19.3 1,694	12,727 7,363 19.7 1,729
519 13,855 0.7 38	661 704 10.7 939	2,713 2,327 13.3 1,166	94,687 74,081 14.6 1,278	38,673 43,414 10.2 891	797 578 15.7 1,379
9,610,452 2,639,449 42.5 3,641 9,610,452 ...	4,380,357 1,647,338 31.6 2,659 4,380,124 233	1,073,719 376,912 32.5 2,849 1,073,634 85	... ... ... ... ... ...	133,480 71,590 21.3 1,865 133,169 311	1,238,643 475,525 29.7 2,605 1,237,746 897
632 13,995 0.8 45	735 829 10.1 887	3,340 2,834 13.5 1,173	131,164 114,947 13.0 1,141	49,453 51,742 10.9 956	2,242 2,068 15.7 1,374
9,611,084 79 ... 383 2,158,812	4,381,094 ... 2,153,622 971,069 ...	1,077,210 147 ... ... ...	131,164 ... ... ... ...	182,963 319 1,510 ... ...	1,241,587 ... ... 445 1,510
7,451,968 240,110 171,418 81,988 4,896,147 36,472 9,252 2,016,581	5,563,647 917,649 346,061 185,540 2,920,423 91,013 773 1,102,188	1,077,357 275,048 95,245 55,385 479,084 17,628 672 154,295	131,164 36,317 16,948 17,188 34,530 7,241 61 18,879	184,792 29,668 22,748 25,202 63,205 7,506 1,360 35,103	1,239,629 109,479 69,314 8,131 822,125 17,426 4,188 208,966



TABLE 14 - FUEL, 1933

Provinces	Bituminous Coal			
	Canadian		Imported	
	Quantity Tons	Value \$	Quantity Tons	Value \$
Canada .....	268,357	1,100,951	12,460	50,885
Prince Edward Island .....	5,595	30,760	...	...
Nova Scotia .....	93,409	346,747	...	...
New Brunswick .....	27,616	110,840	2,491	7,109
Quebec .....	...	...	1,178	7,834
Ontario .....	60	280	x 8,791	35,942
Manitoba .....	...	...	...	...
Saskatchewan .....	135,272	590,989	...	...
Alberta .....	2,150	5,488	...	...
British Columbia and Yukon .....	4,255	15,847	...	...

	Fuel Oil	
	Quantity Gal.	Value \$
Canada .....	2,703,714	290,789
Prince Edward Island .....	78,585	8,519
Nova Scotia .....	100,721	11,921
New Brunswick .....	121,732	12,975
Quebec .....	36,156	3,116
Ontario .....	127,131	9,460
Manitoba .....	227,507	30,802
Saskatchewan .....	1,566,090	161,860
Alberta .....	174,678	26,657
British Columbia and Yukon .....	271,114	25,479

x - Includes 1,827 tons of coke and also 8,700 tons for operation of a synchronous condenser on a hydro electric system.

TABLE 14 - FUEL, 1933

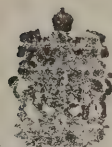
Lignite Coal Canadian		Gasolene		Kerosene	
Quantity Tons	Value \$	Quantity Gal.	Value \$	Quantity Gal.	Value \$
108,369	156,741	47,573	13,090	43,179	9,344
...	...	60	19	1,890	257
...	...	50	13	40	9
...	...	....	...	...	...
...	...	355	78	...	...
...	...	...	...	...	...
3,567	13,665	2,856	849	9,102	1,901
20,823	29,044	22,601	6,416	22,604	5,050
83,979	114,032	20,651	5,465	9,533	2,123
...	...	1,000	250	10	4
Wood		Natural Gas		Other Fuel	Total
Quantity Cords	Value \$	Quantity 1000 cu. ft.	Value \$	Value \$	Value \$
9,696	32,931	312,465	9,123	182,074	1,845,928
150	600	...	...	...	40,155
...	...	...	...	177,003	535,693
86	175	...	...	...	131,099
...	...	...	...	3,571	14,599
...	...	...	...	1,500	47,182
5,602	21,727	...	...	...	68,944
213	323	...	...	...	793,682
2,692	3,944	312,465	9,123	...	166,832
953	6,162	...	...	...	47,742











CANADA

DOMINION BUREAU OF STATISTICS

TRANSPORTATION & PUBLIC UTILITIES BRANCH

**CENSUS OF INDUSTRY, 1934**

*Electric power statistics*

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

*1934*

(Prepared in collaboration with the  
Dominion Water Power and Hydrometric  
Bureau, Department of the Interior)

Published by Authority of the HON. W.D. EULER, M.P.,  
Minister of Trade and Commerce.

OTTAWA

1936



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**DOMINION BUREAU OF STATISTICS**  
**TRANSPORTATION AND PUBLIC UTILITIES BRANCH**  
**OTTAWA**

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Dominion Statistician, R.H. COATS, LL. D., F.R.S.C., F.S.S. (Hon.)

Chief, Transportation and Public Utilities Branch, G.S. Wrong, B.Sc.

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CENTRAL ELECTRIC STATION INDUSTRY, 1934

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves, or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell; many of them also purchase power to supplement their own output, and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 26 stations which were holding generating equipment classed as auxiliary plant equipment. Nineteen of them purchased all their electric energy and the remaining seven generated only 4,009,000 kilowatt hours. This explains the rather anomalous item in table 13 showing the output of non-generating stations.

Included in these statistics are those of some stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants, the statistics pertaining to the central electric station phase of the industry have been segregated as accurately as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual report are for comparable periods and the annual reports are also comparable.

The output of central electric stations rose steadily up to the first quarter of 1930, as indicated by the chart on page 9, and for the following two years decreases were recorded. From the middle of 1932 to the end of 1935 there has been a rapid and fairly continuous improvement, the monthly reports showing an index of 203 for October, 1935, as against 154 for May, 1930, which was the peak before the decline. The annual reports for 1934 show an output of 21,197,124,000 kilowatt hours which was 22 per cent over the 1933 output and 17 per cent over the 1930 output, the previous peak year. The revenues did not show the same rate of increase due to reductions in rates but more particularly to the difference in kind of service sold.

A large part of the increase in kilowatt hours sold was off-peak power at low rates for use in electric boilers. During the year deliveries to electric boilers amounted to 5,337,133,000 kilowatt hours, or 25 per cent of the total output, as against deliveries in 1933 of 3,741,210,000 kilowatt hours, or 21.6 per cent of the total output. In 1933 over 92 per cent of this surplus power was used by the pulp and paper mills but installations of electric boilers in other industries reduced this percentage in 1934 to slightly less than 90 per cent although the quantity increased. Firm power for operating machines, lighting, etc. delivered to the pulp and paper industry also increased from 1933 to 1934 and the total for all purposes amounted to 8,360,423,000 kilowatt hours, or 39.5 per cent of the total central electric station production.



Other large users of electric energy, such as the electro-chemical and electro-metallurgical industries, also showed substantial increases in consumption.

The domestic service consumption has continued to grow even during the years of declining total consumption and in 1934 amounted to 1,717,090,000 kilowatt hours, or an increase of 4 per cent over the 1933 consumption. The growth, however, was not general and in some provinces the net result was both a reduction in consumption or sales and in revenues. In Quebec the number of domestic service customers decreased and in Manitoba, Saskatchewan and British Columbia the increase was at a lower rate than the estimated rate of increase in population. In Quebec, Saskatchewan and British Columbia the domestic service consumption decreased and in Prince Edward Island, Quebec, Saskatchewan and British Columbia the revenues from this source decreased, but the net result for Canada was an increase in revenues for domestic service, also for commercial lighting and power for an increased consumption of electricity in each service.

The equipment in the industry increased in capacity from 6,616,006 horse power in 1933 to 6,854,161 horse power in main plant and from 193,569 horse power in auxiliary plant to 207,431 horse power.

Electricity is exported from Canada only by license granted by the Electricity and Gas Inspection Service of the Department of Trade and Commerce, and the same branch of the department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1935, the export duty amounted to \$265,872 as against \$244,474 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export for the calendar year 1934, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES (CALENDAR YEAR 1934)

Company	Produced for Export Kilowatt Hours	Exported Kilowatt Hours
Hydro Electric Power Commission of Ontario .....	372,749,600	367,953,300
" " " " " (Surplus) .....	197,048,100	193,449,610
Cedar Rapids Manufacturing and Power Co., Ltd. ....	330,886,038	317,347,143
Canadian Niagara Power Co., Ltd. ....	344,306,500	313,193,556
" " " " " (Surplus) .....	23,324,300	23,324,300
Western Power Company of Canada, Ltd. ....	2,800	2,400
Ontario and Minnesota Power Co., Ltd. ....	13,581,600	13,581,600
Maine and New Brunswick Electric Power Co. ....	12,970,498	12,370,806
British Columbia Electric Railway Co., Ltd. ....	177,613	153,654
Northport Power and Light Co. ....	230,140	230,140
Maritime Electric Company, Ltd. ....	817,620	817,620
Southern Canada Power Co. ....	372,576	372,576
Northern British Columbia Power Co. ....	42,190	42,190
Fraser Companies, Ltd. ....	5,731,200	5,719,000
Detroit and Windsor Subway Co. ....	239,900	239,900
Total .....	1,302,480,675	1,248,797,795
Kilowatt hours produced for export and exported by central electric stations only .....	1,296,749,475	1,243,078,795

Of the total output of 21,197,124,000 kilowatt hours, 20,817,309,000 kilowatt hours, or over 98 per cent, were produced by water power, whereas only 373,794,000 kilowatt hours were produced by plants using only thermal engines and 6,021,000 kilowatt hours were produced by auxiliary equipment in hydraulic and non-generating stations. The total hydraulic installation in all industries in Canada in 1934, as compiled by the Dominion Water Power and Hydrometric Bureau, was 7,547,035 horse power which was about 17 per cent of the total that the recorded falls would warrant installing under present day practices. The available and developed water power in Canada is shown in the following table.



POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24-hour power at 80% efficiency		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 3 4	1 9 3 5
(1)	(2) H.P.	(3) H.P.	(4) H.P.	(5) H.P.
Prince Edward Island .....	3,000	5,300	2,439	2,439
Nova Scotia .....	20,800	128,300	116,367	116,367
New Brunswick .....	68,600	169,100	133,681	133,681
Quebec .....	8,459,000	13,064,000	3,703,320	3,853,320
Ontario .....	5,330,000	6,940,000	2,355,755	2,560,155
Manitoba .....	3,309,000	5,344,500	390,925	392,825
Saskatchewan .....	542,000	1,082,000	42,035	42,035
Alberta .....	390,000	1,049,500	71,597	71,597
British Columbia .....	1,931,000	5,103,500	717,717	718,497
Yukon and Northwest Territories .....	294,000	731,000	13,199	18,199
CANADA .....	20,347,400	33,617,200	7,547,035	7,909,115

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals.

With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power.

The following table shows the provincial production plus imports less exports, the net amount being the consumption within each province including all line losses; the deliveries to electric boilers in each province are shown here segregated from other uses. The consumption of electric energy is further analysed in Table 13.

CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)

(Thousands of Kilowatt Hours)

Province	Delivered to Electric Boilers	Other Uses and Line Losses	Total		Increase	
			1934	1933	1934 over 1933	
					Kw. hrs.	Per cent
Prince Edward Island .....	...	4,902	4,902	4,765	137	2.86
Nova Scotia .....	...	389,049	389,049	330,436	58,613	17.74
New Brunswick .....	44,454	341,976	386,430	372,279	14,151	3.80
Quebec .....	3,900,717	5,271,068	9,171,785	7,451,968	1,719,817	23.08
Ontario .....	1,154,877	5,889,053	7,042,930	5,563,647	1,479,283	26.59
Manitoba .....	233,169	950,376	1,183,545	1,077,357	106,188	9.86
Saskatchewan .....	...	134,056	134,056	131,164	2,892	2.20
Alberta .....	...	194,948	194,948	184,792	10,156	5.50
British Columbia and Yukon..	3,916	1,443,126	1,447,042	1,239,629	207,413	16.73
CANADA .....	5,337,133	14,617,554	19,954,687	16,356,037	3,598,650	22.00

TABLE 1 - COMPARATIVE SUMMARY, 1925-1934

The number of power plants decreased by 2 fuel plants, the number of hydro electric plants remaining the same as in 1933. The capital of the industry increased from \$1,386,532,055 in 1933 to \$1,430,852,166 and is the largest investment in any single industry of the manufacturing group, the second highest being the pulp and paper industry with a total of \$554,973,891. The exports to and the imports from the United States are for the calendar year, but all other data in this table are compiled from the annual reports of the central electric stations which are not in all cases for calendar years but for fiscal years ending at various times. There has been a steady increase throughout the ten years included in this table in the capital, which was almost doubled, and in generating capacity. Revenues showed a slump in 1931, 1932 and 1933 but improved in 1934 and the output recorded decreases in the years 1931, 1932 and 1933.

TABLE 2 - POWER PLANTS

The definition of a central electric station as adopted for census purposes was given at the beginning of this report. Some organizations operate several systems which are in different municipalities and which are not connected by transmission lines, and, in other cases, many municipalities are served from one power plant or several inter-connected plants. The organizations reporting are counted as they report. If a commercial organization makes a separate report for each of its subsidiary companies, each such subsidiary company is counted, and if it includes them all in one report they are counted as only one organization. The nature of control is so varied that it is not practicable to do otherwise. The power plants shown in this table are individual plants, counted irrespective of ownership or location. In some cases, two or more of these are operated by one company, some of them being close together, and others, miles apart. During the year there was a reduction of two power plants in Nova Scotia and in Quebec, one in Saskatchewan and in British Columbia, and an addition of two plants in Ontario and in Manitoba, making a net decrease of two in the total.

TABLE 3 - CAPITAL

The capital employed in the industry is reported under four heads, viz., generation, transmission, distribution and general. Generation includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. Transmission includes investments in receiving stations and sites, rights of way of transmission lines and step-up transformers. Distribution includes investments in substations and sites and rights of way of distribution lines, switchboards and step-down transformers in receiving stations and substations, distribution lines, line transformers, meters, etc. General includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal years, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. Consequently the averages per horse power and per K.V.A. are increased by the inclusion of such capital. The total capital increased from \$1,386,532,055 in 1933 to \$1,430,852,166, the increase being all in hydro electric systems. Over 45 per cent of the total capital was invested in Quebec stations, 34.5 per cent in Ontario, 6.7 per cent in British Columbia, 5.4 per cent in Manitoba, 4.4 per cent in the three Maritime Provinces and 3.7 per cent in Saskatchewan and Alberta.

TABLE 4 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 Kw. and under, (5) power, large, over 50 Kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge for street lighting, to public buildings, etc. The revenue is the gross revenue less cost of power or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick and Alberta, which purchased power from other provinces, were lower than they should have been. The average revenues per kilowatt hour

# See 1933 report, page 5, for effect of this omission.



sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services and for commercial light, line losses were not included, the consumption for these two services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenue per kilowatt hour for domestic service continued to decrease although some of the provinces recorded increases. These averages are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters where different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average cost of 2.13 cents per kilowatt hour for all domestic services compares with an average of 5.30 cents in the United States.

TABLE 5 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Ontario, Saskatchewan and Alberta stations showed a reduction from 1933 in salaries and wages but the other provinces showed increases and the total increased from \$21,431,877 to \$21,829,491. Cost of fuel increased from \$1,845,928 in 1933 to \$2,001,620 and taxes from \$5,894,619 to \$6,384,481. Over 91 per cent of these taxes were paid by the commercial stations and amounted to over 7 per cent of their revenues and 0.030 cent per kilowatt hour of output.

TABLE 6 - EMPLOYEES

Ontario and Saskatchewan stations reported a reduced number of employees but stations in other provinces showed increases and the total increased from 14,717 in 1933 to 14,974. Commercial stations in all provinces except Saskatchewan showed increases, but municipal stations in Nova Scotia, Quebec, Ontario, Saskatchewan and Alberta showed decreases. The table below analyses the hours of labour of wage earners in the industry.

Number of Wage-earners in Month of Highest Employment whose Regular Hours per Week were:

Hours per Week	40 hrs or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60	Over 60 hrs	Total
P.E. Island	9	-	-	-	-	-	-	15	-	11	6	1	42
Nova Scotia	165	5	28	6	-	11	99	-	5	-	9	13	341
New Brunswick	32	1	26	1	123	2	4	36	-	80	13	6	324
Quebec	189	36	30	59	1,430	180	65	118	16	262	380	108	2,873
Ontario	755	47	389	64	869	880	16	205	76	303	519	112	4,235
Manitoba	98	-	230	-	236	9	-	-	-	31	9	3	616
Saskatchewan	28	1	46	16	113	2	2	48	11	-	51	-	318
Alberta	196	18	7	-	142	26	1	-	2	-	-	-	392
B.C. & Yukon	309	2	31	63	588	-	-	-	-	9	-	-	1,002
CANADA	1,781	110	787	209	3,501	1,110	187	422	110	696	987	243	10,143



TABLE 7 - CUSTOMERS

As explained under table 4, stations are asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality itself distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. British Columbia led with an average of 17.81 domestic service customers per 100 population, Ontario followed with an average of 17.00 and Quebec was next with 12.55. Only Prince Edward Island, Nova Scotia, Ontario and Alberta showed an increased density compared with the previous year. This means that the estimated increase in the population was at a greater rate than the number of residences using electricity. The economic conditions have caused many families to "double up" in houses leaving many houses vacant and in some municipalities the reduction of domestic service customers was quite considerable.

TABLE 8 - POLE LINE MILEAGE

Transmission and distribution lines have been combined in this table instead of being separated as in previous reports and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines. In Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia wooden poles constituted over 91 per cent of the total pole line mileage.

TABLES 9-10-11 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using fuel only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 2,012,000 kilowatt hours being generated during the year by this auxiliary equipment. The auxiliary plant equipment was increased from 193,569 horse power in 1933 to 207,431 horse power due largely to a municipality in Nova Scotia and one in Quebec buying their supply of power and the power plants being transferred from main plant to auxiliary. Main plant equipment increased from 6,616,006 horse power to 6,854,161 horse power, the increase being practically all in water wheels and turbines which increased from 6,305,997 horse power to 6,560,674 horse power. Quebec stations accounted for all of the increase and British Columbia stations showed small decreases due to re-rating of wheels. During the year there was a decrease in the small water wheels of under 5,000 horse power of 15, but wheels with capacities of 25,000 horse power and over increased by 6 in number and 278,000 horse power in capacity. There was little change during the year in thermal equipment and in direct current generators. The latter are small and are used mainly with internal combustion engines.

TABLE 13 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt hour meters, the kilowatt hours are estimated as best possible. The K.V.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 K.V.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be

only 744,000 kilowatt hours. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio for 1934 was 41.6 per cent, an increase of 5.7 points over 1932 and 1933. The highest ratio was reached in 1928 with 51.2 per cent and the ratio has decreased each succeeding year to 1932. While this ratio will not reach 100 per cent, the present installations could undoubtedly meet a demand considerably greater than the 1934 load. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale has been growing quite rapidly, particularly in 1933, 1934 and 1935. The electricity sold for use in electric boilers during 1932, 1933 and 1934 was as follows.

ELECTRICITY SOLD FOR USE IN ELECTRIC BOILERS

(Thousands of Kilowatt Hours)

Month	1932 <sup>†</sup>	1933	1934
January .....	228,107	296,520	407,857
February .....	221,647	303,184	395,227
March .....	244,092	312,943	445,842
April .....	263,285	302,020	493,601
May .....	224,536	292,976	474,838
June .....	206,264	277,626	436,102
July .....	198,839	277,769	356,157
August .....	215,000	299,100	369,660
September .....	221,691	259,575	346,985
October .....	284,736	300,911	455,524
November .....	295,364	403,413	561,112
December .....	299,107	415,173	594,227
TOTAL .....	2,902,668	3,741,210	5,337,133

<sup>†</sup> Revised

TABLE 14 - FUEL

The total fuel bill was \$2,001,620 divided as follows: Saskatchewan 38.4 per cent, Nova Scotia 36.7 per cent, Alberta 8.3 per cent, New Brunswick 8.0 per cent, Manitoba 3.4 per cent, British Columbia and Yukon 2.0 per cent, Prince Edward Island 2.0 per cent, Ontario 1.0 per cent, and Quebec 0.2 per cent. Local coals were used in the majority of plants using coal and the imported coal was considerably reduced, amounting to only 3,881 tons as against 12,460 tons in 1933. "Other fuel" consists of waste from saw mills and live steam, the latter accounting for the greater part of the total under this heading.

DOMESTIC SERVICE

On the following page is a table bringing together and analysing the domestic service data for each province. The concentration of population in the cities, towns and villages having electric service would affect the number of customers, the number per 100 population, and ratios of consumption to total provincial consumptions and to the domestic consumption in Canada. The price would affect consumption, average bill, average cost per kilowatt hour, and, to a lesser degree, the number of customers. The method of charging for service would also have a marked effect on the average consumption and average cost per kilowatt hour. Flat rate charges and sliding scales which induce increased consumption, particularly the first, tend to greatly increase the kilowatt hour consumption and reduce the average cost per kilowatt hour although they may increase the connected load by only a fraction of the rate of consumption increase. The habits and customs of the people also would have an effect on the consumption. British Columbia ranked first in density of customers, Ontario was second and Quebec third. The annual average bills for domestic service were remarkably close together in all the provinces, especially in view of the large differences in consumptions



and cost per kilowatt hour. This indicates that with adequate supply low rates generally induce increased consumption. Manitoba showed by far the lowest average cost per kilowatt hour and the largest consumption per customer and per capita. These were largely affected by the flat rate for water heaters in Winnipeg. Flat rate water heaters in Ontario also affect Ontario averages, but not to the same extent because the consumption of these heaters was a smaller percentage of the total consumption than in Manitoba.

# DOMESTIC SERVICE

1934

Province	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	Per cent of Total Provincial Consumption	Per cent of Dominion Dom. Serv. Consumption
			\$	¢	Kw. hr.	Kw. hr.		
P.E. Island ....	4,097	4.60	32.67	8.34	392	18	32.7	.1
Nova Scotia ....	48,852	9.31	25.74	5.32	484	45	6.1	1.4
New Brunswick ..	35,364	8.32	27.21	4.91	554	46	5.1	1.2
Quebec .....	378,705	12.55	20.53	3.28	627	79	2.6	13.8
Ontario .....	605,885	17.00	27.75	1.71	1,619	275	13.9	57.1
Manitoba .....	73,545	10.06	37.83	.99	3,835	386	23.8	16.4
Saskatchewan ...	44,493	4.61	39.14	4.99	785	36	26.0	2.0
Alberta .....	58,375	7.59	30.22	5.81	520	39	15.6	1.8
British Columbia and Yukon .....	129,837	17.81	25.25	3.08	821	146	7.4	6.2
CANADA .....	1,379,153	12.75	26.47	2.13	1,245	159	8.6	100.0

# OUTPUT OF CENTRAL ELECTRIC STATIONS<sup>(1)</sup>

Country	Total Output 1934 (Millions of Kw. Hours)	Population (Thousands)	Average Kilowatt Hours Per Capita
Canada .....	21,197	10,835	1,950
United States .....	84,930	126,425	670
Union of Soviet Socialistic Republics .....	20,520	147,028	140
Germany .....	31,000	65,219	475
Belgium .....	4,023	8,092	497
Finland .....	1,846	3,463	533
France .....	15,300	41,229	371
Italy .....	11,884	41,177	289
Norway .....(1933) .....	7,250	2,814	2,576
Netherlands .....	2,158	7,936	272
Poland .....	2,650	32,133	825
United Kingdom <sup>(2)</sup> .....	20,690	44,795	462
Sweden .....	6,050	6,142	985
Switzerland ... (1933) .....	5,000	4,066	1,230
Czechoslovakia (1933) .....	2,613	14,730	1,774
Australia .....	2,716	6,730	404
Japan ..... (1933) .....	18,160	64,067	284

(1) Source of data, except for Canada and the United States .. Statistical Year Book of League of Nations, 1934-35.

(2) Excludes North Ireland.



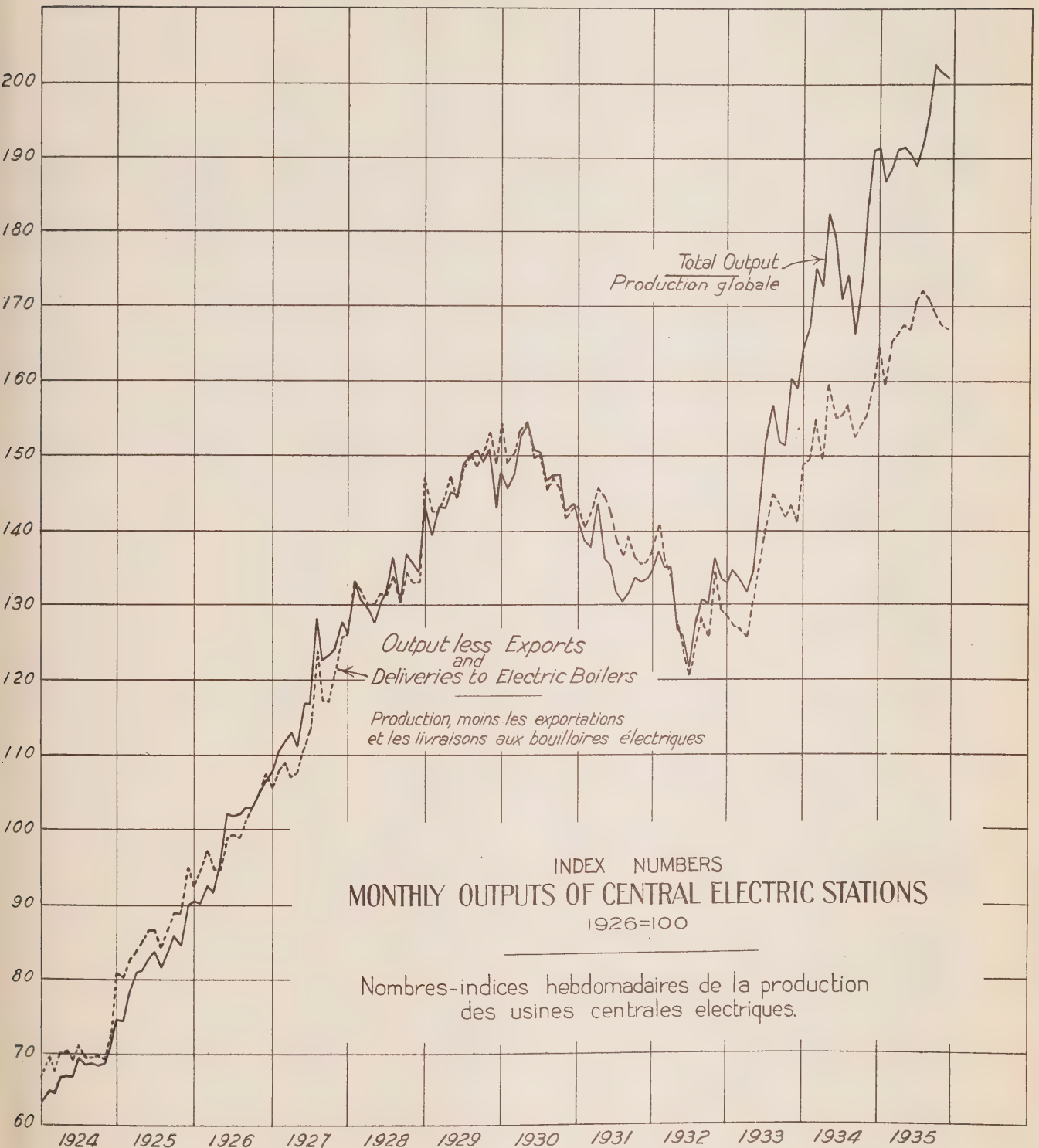


Table 1 - COMPARATIVE SUMMARY, 1934-1925

Principal Data by Class of Station	1934	1933	1932	1931
<b>Electric Power Plants</b>				
Total .....	573	575	572	559
Hydraulic .....	314	314	312	307
Fuel .....	259	261	260	252
Commercial .....	402	403	402	396
Municipal .....	171	172	170	163
<b>Capital</b>				
Total .....	\$ 1,430,852,166	\$ 1,386,532,055	\$ 1,335,886,987	\$ 1,229,988,951
Commercial .....	\$ 956,382,436	\$ 913,946,953	\$ 880,013,400	\$ 785,915,480
Municipal .....	\$ 474,469,730	\$ 472,585,102	\$ 455,873,587	\$ 444,073,471
Generating .....	\$ 1,281,048,308	\$ 1,240,169,785	\$ 1,191,499,567	\$ 1,092,292,089
Non-generating .....	\$ 149,803,863	\$ 146,362,270	\$ 144,387,420	\$ 137,696,862
<b>Revenue (1)</b>				
Total .....	\$ 124,463,613	\$ 117,532,081	\$ 121,212,679	\$ 122,310,730
Commercial .....	\$ 77,309,001	\$ 73,082,078	\$ 73,124,089	\$ 72,103,930
Municipal .....	\$ 47,154,612	\$ 44,450,003	\$ 48,088,590	\$ 50,206,800
Generating .....	\$ 104,089,041	\$ 98,735,084	\$ 100,821,712	\$ 101,475,523
Non-generating .....	\$ 20,374,572	\$ 18,796,997	\$ 20,390,967	\$ 20,835,207
<b>Expenses (2)</b>				
Total .....	\$ 75,948,821	\$ 73,051,651	\$ 74,306,251	\$ 75,235,767
Commercial .....	\$ 31,778,237	\$ 29,169,633	\$ 30,349,320	\$ 32,418,131
Municipal .....	\$ 44,170,584	\$ 43,882,018	\$ 43,956,931	\$ 42,817,636
Generating .....	\$ 40,911,118	\$ 38,608,455	\$ 40,262,157	\$ 41,336,873
Non-generating .....	\$ 35,037,703	\$ 34,443,196	\$ 34,044,094	\$ 33,898,894
<b>Pole Line Mileage</b>				
Total .....	56,214	56,570	53,845	52,399
Commercial .....	26,476	25,129	25,010	24,299
Municipal .....	29,738	31,441	28,835	28,100
Generating .....	42,537	43,625	40,675	39,709
Non-generating .....	13,677	12,945	13,170	12,690
<b>Customers</b>				
Total .....	1,660,079	1,666,882	1,657,454	1,632,792
Domestic service (3) .....	1,379,153	1,371,806	1,357,462	1,336,721
Commercial light .....	229,187	244,283	248,487	244,634
Power (small) .....	41,429	40,641	28,942	25,913
Power (large) .....	8,325	8,160	20,593	23,583
Street lighting .....	1,985	1,992	1,970	1,941
Commercial stations .....	760,462	776,581	776,400	758,285
Municipal stations .....	899,617	890,301	881,054	874,507
Generating stations .....	819,419	843,324	846,420	835,460
Non-generating stations .....	840,660	823,558	811,034	797,332
<b>Electric Energy Generated</b>				
Total Kilowatt Hours (thousands) .....	21,197,124	17,338,990	16,052,057	16,330,867
Commercial .....	16,060,883	13,665,974	12,338,216	12,191,139
Municipal .....	5,136,241	3,673,016	3,713,841	4,139,707
Exports to the United States... (thousands) Kw.H. (6)	1,243,079	983,561	659,691	1,227,036
Imports from the United States.. " Kw.H. (6)	642	608	552	5,446
<b>Equipment in Generating Stations (Main Plant Only)</b>				
Total Primary Power .....	H.P. 6,854,161	6,616,006	6,343,654	5,706,757
Total in Commercial Stations .....	H.P. 4,961,639	4,707,096	4,577,493	4,046,810
Total in Municipal Stations .....	H.P. 1,892,522	1,908,910	1,766,161	1,659,947
Total Secondary Power .....	K.V.A. 5,699,955	5,491,685	5,278,204	4,727,376
Total in Commercial Stations .....	K.V.A. 4,179,536	3,956,475	3,850,009	3,388,926
Total in Municipal Stations .....	K.V.A. 1,520,419	1,535,210	1,428,195	1,338,450
<b>Auxiliary Plant Equipment</b>				
Primary Power .....	H.P. 207,431	193,569	184,879	184,043
Secondary Power .....	K.V.A. 177,244	164,732	157,077	157,221

(1) Duplications excluded

(2) Includes wages, cost of power, fuel and taxes, but not other expenses.

(3) Farm service is included with domestic service.

Table 1 - COMPARATIVE SUMMARY, 1934-1925

1930	1929	1928	1927	1926	1925
587	585	601	629	595	563
311	300	300	302	294	284
276	285	301	327	301	279
421	420	428	432	393	365
166	165	173	197	202	198
1,138,200,016	1,055,731,532	956,919,603	866,825,285	756,220,066	726,721,087
723,890,071	685,771,270	614,910,399	528,070,964	430,817,426	409,862,801
414,309,945	369,960,262	342,009,204	338,754,321	325,402,640	316,858,286
995,701,285	926,103,973	835,422,031	750,703,270	647,850,154	625,970,883
142,498,731	129,627,559	121,497,572	116,122,015	108,369,912	100,750,204
126,038,145	122,883,446	112,326,819	104,033,297	88,933,733	79,341,584
73,261,572	70,874,794	64,575,700	59,320,175	47,911,555	42,195,543
52,776,573	52,008,652	47,751,119	44,713,122	41,022,178	37,146,041
104,632,540	102,704,833	92,722,293	86,369,058	72,123,290	63,547,553
21,405,605	20,178,613	19,604,526	17,664,239	16,810,443	15,794,031
74,209,469	67,432,418	62,330,860	60,169,781	52,766,799	47,635,531
33,712,063	31,888,591	30,961,337	28,704,496	24,622,619	21,325,649
40,497,406	35,543,827	31,369,523	31,465,285	28,144,180	26,309,882
40,646,659	36,713,723	33,837,618	31,920,941	27,655,269	24,857,279
33,562,810	30,718,695	28,493,242	28,248,840	25,111,530	22,778,252
48,814	42,913	37,333	33,573	29,695	27,653
23,614	22,356	18,875	16,747	14,257	13,047
25,200	20,557	18,458	16,826	15,438	14,606
35,707	30,718	25,524	23,246	20,005	18,372
13,107	12,195	11,809	10,327	9,690	9,281
1,607,881	1,555,883	1,464,005	1,381,968	1,337,562	1,279,731
1,317,324	1,292,481	1,207,457	1,142,512	1,110,637	1,063,530
238,847	233,854(4)	215,728	199,431	188,553	180,994
24,836	( 28,001	(40,820	( 40,025	( 38,372	( 35,207
25,150	( 1,547	(	(	(	(
1,724(5)	...	...	...	...	...
745,608	733,698	677,223	622,823	584,760	559,172
862,158	822,185	786,782	759,145	752,802	720,559
814,268	796,298	728,872	699,874	680,717	653,032
793,498	759,585	735,133	682,094	656,845	626,699
18,093,802	17,962,515	16,337,804	14,549,099	12,093,445	10,110,459
12,937,014	12,774,107	11,460,974	9,944,422	7,797,480	6,527,103
5,156,788	5,188,408	4,876,830	4,604,677	4,295,965	3,583,356
1,612,281	1,444,524	1,587,761	1,632,614	1,506,002	1,285,540
5,757	6,133	5,223	5,020	5,354	...
5,401,108	4,925,555	4,627,667	4,173,349	3,769,323	3,569,527
3,794,819	3,523,625	3,268,350	2,797,055	2,423,244	2,243,318
1,606,289	1,401,930	1,359,317	1,376,294	1,346,079	1,326,209
4,474,865	4,048,019	3,764,331	3,385,227	2,995,387	2,844,709
3,181,428	2,940,210	2,690,097	2,297,005	1,938,048	1,803,545
1,293,437	1,107,809	1,074,234	1,088,222	1,057,339	1,041,164
171,453	171,888	159,233	145,047	176,865	173,170
145,678	146,251	135,440	121,863	145,828	142,421

(4) Includes small power customers in 1929

(5) Revised.

(6) By central electric stations only. See page 2.



TABLE 2 - ELECTRIC POWER PLANTS, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total number of Generating Stations</u> .....	573	11	45	15
<u>Per cent of Total for Canada</u> .....	100.00	1.92	7.85	2.62
<u>Commercial</u> .....	402	9	23	10
Hydraulic .....	211	8	13	4
Fuel .....	191	1	10	6
<u>Municipal</u> .....	171	2	22	5
Hydraulic .....	103	..	19	3
Fuel .....	68	2	3	2
With water wheels and turbines .....	314	8	32	7
With steam engines only .....	38	..	1	2
With steam turbines only .....	15	1	6	1
With gas or oil engines only .....	194	2	6	4
With both steam engines and turbines .....	7	..	..	1
With both steam and gas or oil engines ....	5	..	..	..
With alternating current dynamos only .....	432	10	42	10
With direct current dynamos only .....	137	1	3	4
With both alternating & direct current dynamos	4	..	..	1
<u>Commercial Organizations</u> .....	x 371	8	26	24
Number generating power .....	283	7	13	9
Number buying power for redistribution ....	87	1	13	14
<u>Municipalities</u> .....	x 465	2	28	14
Number generating power .....	81	2	9	4
Number buying power for redistribution ....	383	..	19	10
<u>Auxiliary Plants</u> .....	69	2	9	6
To hydraulic stations .....	42	2	3	..
To non-generating stations .....	26	..	6	5

x - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one.

TABLE 2 - ELECTRIC POWER PLANTS, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
94	133	29	119	64	63
16.41	23.21	5.06	20.77	11.17	10.99
79	66	15	89	56	55
78	61	4	..	5	38
1	5	11	89	51	17
15	67	14	30	8	8
13	59	3	..	1	5
2	8	11	30	7	3
91	120	7	..	6	43
..	11	4	1	11	8
..	..	..	4	2	1
3	2	16	111	39	11
..	..	1	3	2	..
..	..	1	..	4	..
90	127	22	47	31	53
3	6	6	72	32	10
1	..	1	..	1	..
66	55	14	71	58	47
44	44	13	69	50	34
22	10	6	2	7	12
28	326	18	21	16	16
10	18	10	15	6	7
17	307	7	6	9	8
7	14	6	..	9	16
6	9	2	..	7	13
1	5	4	..	2	3

TABLE 3 - CAPITAL, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	\$	\$	\$	\$
<u>Total Capital</u> .....	1,430,852,166	1,130,541	30,745,929	31,597,403
Per cent of total for Canada .....	100.00	0.08	2.15	2.21
Generation .....	890,235,268	577,092	19,113,175	22,889,422
Transmission .....	213,775,493	...	4,426,956	3,450,734
Distribution .....	244,005,188	441,927	5,433,574	4,046,475
General .....	82,836,217	111,522	1,772,224	1,210,772
<u>Total Capital in Commercial Stations</u> .....	956,382,436	924,220	13,957,507	23,060,391
Generation .....	665,131,269	478,517	5,942,378	18,836,359
Transmission .....	114,403,973	...	2,852,077	1,730,448
Distribution .....	118,182,001	383,506	4,038,736	1,647,180
General .....	58,665,193	62,197	1,124,316	846,404
Non-generating stations .....	36,482,718	5,000	5,702,201	1,994,641
Generating stations .....	919,899,718	919,220	8,255,306	21,065,750
Hydraulic stations .....	896,642,046	108,331	3,266,625	17,707,938
Fuel stations .....	23,257,672	810,889	4,988,681	3,357,812
<u>Total Capital in Municipal Stations</u> .....	474,469,730	206,321	16,788,422	8,537,012
Generation .....	225,103,999	98,575	13,170,797	4,053,063
Transmission .....	99,371,520	...	1,574,879	1,720,286
Distribution .....	125,823,187	58,421	1,394,838	2,399,295
General .....	24,171,024	49,325	647,908	364,368
Non-generating stations .....	113,321,145	...	1,634,322	1,456,625
Generating stations .....	361,148,585	206,321	15,154,100	7,080,387
Hydraulic stations .....	343,563,476	...	15,037,269	5,045,760
Fuel stations .....	17,585,109	206,321	116,831	2,034,627
<u>Total Capital in Non-generating Stations</u> .....	149,803,863	5,000	7,336,523	3,451,266
Generation .....	3,082,072	...	983,469	631,392
Transmission .....	7,700,696	...	1,531,150	223,944
Distribution .....	121,369,272	5,000	3,971,753	2,003,637
General .....	17,651,823	...	850,151	592,293
<u>Total Capital in Generating Stations</u> .....	1,281,048,303	1,125,541	23,409,406	28,146,137
Generation .....	887,153,196	577,092	18,129,706	22,258,030
Transmission .....	206,074,797	...	2,895,806	3,226,790
Distribution .....	122,635,916	436,927	1,461,821	2,042,838
General .....	65,184,394	111,522	922,073	618,479
Hydraulic stations .....	1,240,205,522	108,331	18,303,894	22,753,698
Fuel stations .....	40,842,781	1,017,210	5,105,512	5,392,439
<u>TOTAL CAPITAL</u>				
Average per H.P. of primary power .....	209	205	217	241
Average per H.P. including auxiliary equipment .....	203	199	196	231
Average per K.V.A. of dynamo capacity .....	251	229	259	285
Average per K.V.A. including auxiliary equipment .....	243	227	235	274
<u>Generation</u>				
Average cost per H.P. (including auxiliary equipment)-				
In all generating stations .....	126	101	127	170
In hydraulic stations .....	128	107	177	178
In fuel stations .....	80	101	60	138



TABLE 3 - CAPITAL, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
\$	\$	\$	\$	\$	\$
647,879,999	493,414,290	x 77,352,060	x 25,484,592	27,102,474	96,144,878
45,28	34,48	5,41	1,78	1,89	6,72
466,798,630	259,413,241	43,962,896	12,154,628	12,853,535	52,472,649
71,850,075	100,781,025	11,716,307	4,329,644	6,645,112	10,575,640
70,382,524	107,853,848	17,816,941	7,441,384	6,478,102	24,110,413
38,848,770	25,366,176	3,855,916	1,558,936	1,125,725	8,986,176
639,836,276	106,098,580	44,334,795	12,430,394	21,702,157	94,038,116
462,270,202	78,239,789	30,995,991	5,861,162	10,817,556	51,689,315
71,472,627	13,509,231	5,637,093	2,201,535	6,497,648	10,503,314
67,561,033	9,063,325	5,664,965	3,329,116	3,524,951	22,969,189
38,532,414	5,286,235	2,036,746	1,038,581	862,002	8,876,298
576,195	2,792,750	944,153	1,737,621	96,039	22,634,118
639,260,081	103,305,830	43,390,642	10,692,773	21,606,118	71,403,998
639,221,897	103,268,749	42,986,018	...	18,921,583	71,160,905
38,184	37,081	404,624	10,692,773	2,684,535	243,093
8,043,723	387,315,710	33,017,265	13,054,198	5,400,317	2,106,762
4,528,428	181,173,452	12,966,905	6,293,466	2,035,979	783,334
377,448	87,271,794	6,079,214	2,128,109	147,464	72,326
2,821,491	98,790,523	12,151,976	4,112,268	2,953,151	1,141,224
316,356	20,079,941	1,819,170	520,355	263,723	109,878
2,379,253	98,101,990	4,893,692	1,681,912	2,198,655	974,696
5,664,470	289,213,720	28,123,573	11,372,286	3,201,662	1,132,066
5,620,470	289,041,357	27,526,796	...	237,481	1,054,343
44,000	172,363	596,777	11,372,286	2,964,181	77,723
2,955,448	100,894,740	5,837,845	3,419,533	2,294,694	23,608,814
686,001	295,633	342,490	...	62,058	81,029
17,000	827,855	2,765,129	864,473	85,331	1,385,814
2,076,348	88,761,524	2,408,870	2,303,049	2,111,105	17,727,986
176,099	11,009,728	321,356	252,011	36,200	4,413,985
644,924,551	392,519,550	71,514,215	22,065,059	24,807,780	72,536,064
466,112,629	259,117,608	43,620,406	12,154,628	12,791,477	52,391,620
71,833,075	99,953,170	8,951,178	3,465,171	6,559,781	9,189,826
68,306,176	19,092,324	15,408,071	5,138,335	4,366,997	6,382,427
38,672,671	14,356,448	3,534,560	1,306,925	1,089,525	4,572,191
644,842,367	392,310,106	70,512,814	...	19,159,064	72,215,248
82,184	209,444	1,001,401	22,065,059	5,648,716	320,816
196	246	176	188	210	171
194	241	163	188	179	157
228	305	218	222	258	221
226	299	201	222	218	201
140	127	93	90	85	86
140	127	93	..	111	86
243	113	160	90	45	82

\* - Capital invested in one hydraulic station in Saskatchewan included under Manitoba.

TABLE 4 - REVENUE, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	\$	\$	\$	\$
<u>REVENUES</u>				
Revenue from sale of electric energy .....	124,463,613	279,745	4,904,770	+ 3,121,418
For domestic service .....	36,507,822	133,843	1,257,599	962,212
For commercial light .....	20,078,261	75,613	714,312	450,961
For power (small) .....	8,022,450	19,162	284,405	184,039
For power (large) .....	55,158,946	31,261	2,458,598	1,419,488
For street lighting .....	4,696,134	19,866	189,856	104,718
Revenue of Commercial Stations .....	77,309,001	225,484	3,279,977	2,063,610
Non-generating .....	4,604,388	527	1,192,226	336,016
Generating .....	72,704,613	224,957	2,087,751	1,727,594
Hydraulic .....	68,138,880	20,041	373,113	1,274,979
Fuel .....	4,565,733	204,916	1,714,638	452,615
Revenue of Municipal Stations .....	47,154,612	54,261	1,624,793	1,057,808
Non-generating .....	15,770,184	...	376,789	332,323
Generating .....	31,384,428	54,261	1,248,004	725,485
Hydraulic .....	27,072,981	...	1,216,903	433,209
Fuel .....	4,311,447	54,261	31,101	292,276
Revenue of non-generating stations .....	20,374,572	527	1,569,015	668,339
Revenue of generating stations .....	104,089,041	279,218	3,335,755	2,453,079
Revenue of hydraulic stations .....	95,211,861	20,041	1,590,016	1,708,188
Revenue of fuel stations .....	8,877,180	259,177	1,745,739	744,891
Average net revenue per H.P. of primary power .....	18.16	50.61	34.54	23.86
Average net revenue per H.P. in main and auxiliary plants ..	17.63	49.15	31.32	22.81
Average net revenue per K.V.A. of dynamo capacity .....	21.84	56.75	41.37	28.18
Average net revenue per K.V.A. in main and auxiliary plants	21.18	56.21	37.51	27.10
Average net revenue per kilowatt hour consumed.....(cents)	0.59	5.71	1.26	0.78
Average net revenue per domestic service customer .....	26.47	32.67	25.74	27.21
Average net revenue per commercial light customer .....	87.61	74.86	82.14	78.56
Average net revenue per small power customer .....	193.64	168.09	168.39	193.93
Average net revenue per large power customer .....	6,625.69	919.44	16,069.27	9,217.45
Average net revenue per kilowatt hour - domestic and farm service .....	2.13	8.34	5.32	4.91
Average net revenue per kilowatt hour - commercial light .....	2.48	7.48	5.51	3.65

+ Affected by power purchased from another province

TABLE 4 - REVENUE, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
\$	\$	\$	\$	\$	\$
46,818,247	452,785,524	6,378,674	4,229,402	44,585,384	10,715,293
7,776,391	16,811,849	2,782,475	1,741,371	1,764,295	3,277,787
5,580,350	7,536,420	1,367,327	1,085,207	1,116,082	2,151,989
2,186,729	3,277,807	372,666	601,014	675,680	420,948
30,084,962	23,134,127	1,639,049	531,389	761,050	4,453,866
1,189,815	2,025,321	217,157	270,421	268,277	410,703
45,626,974	10,943,890	3,177,104	1,544,271	2,302,897	10,137,202
87,759	1,175,333	131,889	137,293	50,133	2,397,524
45,539,215	9,768,557	3,045,215	1,406,978	2,252,764	7,739,678
45,528,754	9,759,162	2,982,462	...	1,653,404	7,635,061
10,461	9,395	62,753	1,406,978	599,360	104,617
1,191,273	41,841,634	3,201,570	2,685,131	2,282,487	578,091
451,451	12,426,112	598,578	499,168	817,158	318,455
739,822	29,415,522	2,602,992	2,185,963	1,465,329	259,636
733,929	29,362,315	2,388,182	...	33,906	217,123
5,893	53,207	214,810	2,185,963	1,431,423	42,513
539,210	13,601,445	730,467	636,461	867,291	2,715,979
46,279,037	39,184,079	5,648,207	3,592,941	3,718,093	7,999,314
46,262,683	39,121,477	5,370,644	...	1,687,310	7,852,184
16,354	62,602	277,563	3,592,941	2,030,783	147,130
14.17	26.33	14.48	31.23	35.45	19.07
14.01	25.78	13.48	31.23	30.28	17.49
16.50	32.65	17.98	36.77	43.62	24.58
16.30	31.95	16.61	36.77	36.89	22.41
0.41	0.64	0.54	3.15	2.35	0.74
20.53	27.75	37.83	39.14	30.22	25.25
97.86	85.64	89.36	79.33	67.92	92.36
181.70	233.20	141.00	213.05	164.64	139.48
29,905.52	9,216.78	706.18	6,402.28	2,679.75	2,502.17
3.28	1.71	.99	4.99	5.81	3.08
3.13	2.07	1.05	6.25	4.75	3.11



TABLE 5 - EXPENSES, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	\$	\$	\$	\$
<u>Total Expenses</u> .....	75,948,821	113,921	2,877,496	1,565,147
Per cent of total for Canada .....	100.00	0.15	3.79	2.06
Salaries and wages .....	21,829,491	57,067	881,314	466,605
Fuel .....	2,001,620	39,176	734,019	161,095
Taxes .....	6,384,481	17,108	273,062	97,145
Cost of power .....	45,733,229	570	989,101	840,302
<u>Total for Commercial Stations</u> .....	31,778,237	99,060	2,265,552	810,824
Salaries and wages .....	9,922,578	50,962	610,633	273,444
Fuel .....	1,275,232	30,420	726,788	92,143
Taxes .....	5,860,793	17,108	269,875	96,666
Cost of power .....	14,719,634	570	658,256	348,571
Non-generating stations .....	6,815,062	854	1,185,321	513,269
Generating stations .....	24,963,175	98,206	1,080,231	297,555
Hydraulic stations .....	22,628,152	8,880	128,334	90,994
Fuel stations .....	2,335,023	89,326	951,897	206,561
<u>Total for Municipal Stations</u> .....	44,170,584	14,861	611,944	754,323
Salaries and wages .....	11,906,913	6,105	270,681	193,161
Fuel .....	726,388	8,756	7,231	68,952
Taxes .....	523,688	...	3,187	479
Cost of power .....	31,013,595	...	330,845	491,731
Non-generating stations .....	28,222,641	...	417,735	376,590
Generating stations .....	15,947,943	14,861	194,209	377,733
Hydraulic stations .....	14,264,174	...	180,477	270,722
Fuel stations .....	1,683,769	14,861	13,732	107,011
<u>Total Expenses for Non-generating Stations</u> ...	35,037,703	854	1,603,056	889,859
Salaries and wages .....	7,053,437	284	405,889	201,854
Fuel .....	37,829	...	35,146	...
Taxes .....	748,318	...	188,301	45,680
Cost of power .....	27,198,119	570	973,720	642,325
<u>Total Expenses for Generating Stations</u> .....	40,911,118	113,067	1,274,440	675,288
Salaries and wages .....	14,776,054	56,783	475,425	264,751
Fuel .....	1,963,791	39,176	698,873	161,095
Taxes .....	5,636,163	17,108	84,761	51,465
Cost of power .....	18,535,110	...	15,381	197,977
Hydraulic stations .....	36,892,326	8,880	308,811	361,716
Fuel stations .....	4,018,792	104,187	965,629	313,572

TABLE 5 - EXPENSES, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
\$	\$	\$	\$	\$	\$
15,230,299	42,382,670	3,262,238	2,420,662	1,997,919	6,098,469
20.05	55.80	4.30	3.19	2.63	8.03
4,902,004	10,562,823	1,461,685	751,221	852,052	1,894,720
3,840	20,739	68,199	768,627	166,002	39,923
3,296,653	1,178,520	249,032	135,146	194,793	943,022
7,027,802	30,620,588	1,483,322	765,668	785,072	3,220,804
14,746,193	5,055,398	1,533,015	778,026	710,536	5,779,633
4,674,454	1,321,878	507,872	288,617	407,881	1,786,837
2,341	7,104	14,511	294,349	77,092	30,484
3,285,699	880,847	161,653	90,153	115,770	943,022
6,783,699	2,845,569	848,979	104,907	109,793	3,019,290
52,953	986,740	231,800	99,546	38,863	3,705,716
14,693,240	4,068,658	1,301,215	678,480	671,673	2,073,917
14,687,816	4,061,318	1,263,540	...	356,845	2,030,425
5,424	7,340	37,675	678,480	314,828	43,492
484,106	37,327,272	1,729,223	1,642,636	1,287,383	318,836
227,550	9,240,945	953,813	462,604	444,171	107,883
1,499	13,635	53,688	474,278	88,910	9,439
10,954	297,673	87,379	44,993	79,023	...
244,103	27,775,019	634,343	660,761	675,279	201,514
361,164	24,977,256	333,840	737,807	775,444	242,805
122,942	12,350,016	1,395,383	904,829	511,939	76,031
118,816	12,331,814	1,303,353	...	8,373	50,619
4,126	18,202	92,030	904,829	503,566	25,412
414,117	25,963,996	565,640	837,353	814,307	3,948,521
139,618	4,921,624	184,841	96,395	174,048	928,884
...	...	2,683	...	...	...
1,247	109,923	13,416	48,067	57,118	284,566
273,252	20,932,449	364,700	692,891	583,141	2,735,071
14,816,182	16,418,674	2,696,598	1,583,309	1,183,612	2,149,948
4,762,386	5,641,199	1,276,844	654,826	678,004	965,836
3,840	20,739	65,516	768,627	166,002	39,923
3,295,406	1,068,597	235,616	87,079	137,675	658,456
6,754,550	9,688,139	1,118,622	72,777	201,931	485,733
14,806,632	16,393,132	2,566,893	...	365,218	2,081,044
9,550	25,542	129,705	1,583,309	818,394	68,904

Table 6 - EMPLOYEES, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Number of Persons Employed</u> .....	14,974	55	759	448
Per cent of total for Canada .....	100.00	0.37	5.07	2.99
Officers, clerks, other salaried employees, etc. ....	6,288	19	263	219
Employees on wages .....	8,686	36	496	229
<u>Total Employees in Commercial Stations</u> .....	7,161	47	494	260
Officers, clerks, other salaried employees, etc. ....	2,640	16	174	106
Employees on wages .....	4,521	31	320	154
Non-generating .....	1,068	1	251	113
Generating .....	6,093	46	243	147
Hydraulic .....	5,457	10	100	57
Fuel .....	636	36	143	90
<u>Total Employees in Municipal Stations</u> .....	7,813	8	265	188
Officers, clerks, other salaried employees, etc. ....	3,648	3	89	113
Employees on wages .....	4,165	5	176	75
Non-generating .....	3,903	..	91	68
Generating .....	3,910	8	174	120
Hydraulic .....	3,359	..	164	94
Fuel .....	551	8	10	26
<u>Total Employees in Non-generating Stations</u> .....	4,971	1	342	181
Officers, clerks, other salaried employees, etc. ....	2,648	..	164	97
Employees on wages .....	2,323	1	178	84
<u>Total Employees in Generating Stations</u> .....	10,003	54	417	267
Officers, clerks, other salaried employees, etc. ....	3,640	19	99	122
Employees on wages .....	6,363	35	318	145
Hydraulic .....	8,816	10	264	151
Fuel .....	1,187	44	153	116



Table 6 - EMPLOYEES, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,432	6,686	1,075	524	625	1,370
22.92	44.65	7.18	3.50	4.17	9.15
1,074	2,993	545	238	295	642
2,358	3,693	530	286	330	728
3,249	949	362	213	318	1,269
993	326	156	123	162	584
2,256	623	206	90	156	685
24	40	12	14	9	604
3,225	909	350	199	309	665
3,222	903	328	..	190	647
3	6	22	199	119	18
183	5,737	713	311	307	101
81	2,667	389	115	133	58
102	3,070	324	196	174	43
84	3,302	139	49	124	46
99	2,435	574	262	183	55
96	2,427	525	..	7	46
3	8	49	262	176	9
108	3,342	151	63	133	650
53	1,737	94	33	78	392
55	1,605	57	30	55	258
3,324	3,344	924	461	492	720
1,021	1,256	451	205	217	250
2,303	2,088	473	256	275	470
3,318	3,330	853	..	197	693
6	14	71	461	295	27

TABLE 7 - NUMBER OF CUSTOMERS, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Number of Customers</u> .....	1,660,079	5,266	59,471	42,245
Per cent of total for Canada .....	100.00	0.32	3.58	2.54
Domestic service .....	1,379,153	4,097	48,852	35,364
Commercial light .....	229,187	1,010	8,696	5,740
Power (small) .....	41,429	114	1,689	949
Power (large) .....	8,325	34	153	154
Street lighting .....	1,985	11	81	33
<u>Total Number of Customers of Commercial Stations..</u>	760,462	4,286	39,537	21,429
Domestic service .....	621,118	3,375	32,452	17,140
Commercial light .....	114,140	800	5,941	3,567
Power (small) .....	19,926	68	985	647
Power (large) .....	4,087	34	107	55
Street lighting .....	1,191	9	52	20
Non-generating .....	162,631	50	31,165	13,261
Generating .....	597,831	4,236	8,372	8,168
Hydraulic .....	550,074	730	5,368	272
Fuel .....	47,757	3,506	3,004	7,896
<u>Total Number of Customers of Municipal Stations...</u>	899,617	980	19,934	20,816
Domestic service .....	758,035	722	16,400	18,224
Commercial light .....	115,047	210	2,755	2,173
Power (small) .....	21,503	46	704	302
Power (large) .....	4,238	...	46	99
Street lighting .....	794	2	29	18
Non-generating .....	678,029	...	16,258	13,337
Generating .....	221,588	980	3,676	7,479
Hydraulic .....	160,374	...	2,929	6,106
Fuel .....	61,214	980	747	1,373
<u>Total Number of Customers of Non-generating Stations</u>	840,660	50	47,423	26,598
Domestic service .....	703,256	32	39,100	22,152
Commercial light .....	114,687	9	6,850	3,805
Power (small) .....	18,512	8	1,352	519
Power (large) .....	3,619	...	82	97
Street lighting .....	586	1	39	25
<u>Total Number of Customers of Generating Stations..</u>	819,419	5,216	12,048	15,647
<u>Hydraulic stations</u> .....	710,448	730	8,297	6,378
Domestic service .....	596,122	605	6,730	5,874
Commercial light .....	90,608	122	1,227	400
Power (small) .....	18,361	...	258	70
Power (large) .....	4,323	...	49	26
Street lighting .....	1,034	3	33	8
<u>Fuel stations</u> .....	108,971	4,486	3,751	9,269
Domestic service .....	79,775	3,460	3,022	7,338
Commercial light .....	23,892	879	619	1,535
Power (small) .....	4,556	106	79	360
Power (large) .....	383	34	22	31
Street lighting .....	365	7	9	5
Average number of domestic service customers per 100 of population .....	12.75	4.60	9.31	8.32

TABLE 7 - NUMBER OF CUSTOMERS, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
449,443 27.07	710,986 42.83	93,912 5.66	61,357 3.70	79,388 4.78	158,011 9.52
378,705 57,026 12,035 1,006 671	605,885 88,000 14,056 2,510 535	73,545 15,302 2,643 2,321 101	44,493 13,680 2,821 83 280	58,375 16,433 4,104 284 192	129,837 23,300 3,018 1,780 76
416,067 348,918 54,348 11,209 949 643 2,856 413,211 413,063 148	61,014 50,577 8,730 1,361 285 61 3,906 57,108 56,813 295	28,497 20,492 6,642 501 840 22 5,874 22,623 21,436 1,187	22,521 15,618 5,841 882 33 147 2,683 19,838 ... 19,838	26,021 16,297 7,507 1,979 62 176 1,438 24,583 14,229 10,354	141,090 116,249 20,764 2,294 1,722 61 101,398 39,692 38,163 1,529
33,376 29,787 2,678 826 57 28	649,972 555,308 79,270 12,695 2,225 474	65,415 53,053 8,660 2,142 1,481 79	38,836 28,875 7,839 1,939 50 133	53,367 42,078 8,926 2,125 222 16	16,921 13,588 2,536 724 58 15
17,789 15,587 15,224 363	567,085 82,887 82,072 815	12,512 52,903 49,318 3,585	14,071 24,765 ... 24,765	25,154 28,213 744 27,469	11,823 5,098 3,981 1,117
20,645 18,270 1,794 513 29 39	570,991 480,201 76,863 11,913 1,702 312	18,386 15,081 2,565 582 88 70	16,754 12,398 3,430 840 31 55	26,592 22,183 3,379 974 43 13	113,221 93,839 15,992 1,811 1,547 32
428,798 428,287 360,022 55,135 11,522 977 631	139,995 138,885 124,773 10,959 2,127 806 220	75,526 70,754 55,010 11,699 1,828 2,207 10	44,603 ... ... ... ... ... ...	52,796 14,973 9,113 4,342 1,393 28 97	44,790 42,144 33,995 6,724 1,163 230 32
511 413 97 ... ... 1	1,110 911 178 16 2 3	4,772 3,454 1,038 233 26 21	44,603 32,095 10,250 1,981 52 225	37,823 27,079 8,712 1,737 213 82	2,646 2,003 584 44 3 12
12.55	17.00	10.06	4.61	7.59	17.81



TABLE 8 - POLE LINE MILEAGE, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Pole Line Mileage</u> .....	56,214	205	2,470	1,728
Per cent of total for Canada .....	100.00	0.37	4.39	3.08
Miles of steel towers .....	5,286	...	26	215
Miles of steel poles .....	733	...	...	...
Miles of wooden poles .....	48,102	203	2,437	1,512
Miles of concrete poles .....	485	...	...	...
Miles of underground and submarine cables....	1,608	2	7	1
<u>Total Pole Line Mileage in Commercial Stations.</u>	26,476	187	1,390	624
Non-generating .....	4,121	7	598	249
Generating .....	22,355	180	792	375
Hydraulic .....	19,974	57	595	154
Fuel .....	2,381	123	197	221
<u>Total Pole Line Mileage in Municipal Stations..</u>	29,738	18	1,080	1,104
Non-generating .....	9,556	...	425	225
Generating .....	20,182	18	655	879
Hydraulic .....	17,678	...	634	687
Fuel .....	2,504	18	21	192
<u>Total Pole Line Mileage in Non-generating Stations</u>	13,677	7	1,023	474
<u>Total Pole Line Mileage in Generating Stations.</u>	42,537	198	1,447	1,254
Hydraulic .....	37,652	57	1,229	841
Fuel .....	4,885	141	218	413

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1934

<u>Total Primary Power</u> .....	H.P.	207,431	165	14,601	6,025
Per cent of total for Canada .....		100.00	0.08	7.04	2.91
Steam reciprocating engines .....	No.	44	1	9	7
Total capacity .....	H.P.	19,384	75	3,988	1,850
Steam turbines .....	No.	52	...	6	4
Total capacity .....	H.P.	178,453	...	10,028	3,600
Gas and oil engines .....	No.	53	2	5	3
Total capacity .....	H.P.	9,594	90	585	575
<u>Total Secondary Power</u> .....	K.V.A.	177,244	48	12,197	4,390
<u>Commercial Stations</u>					
<u>Total Primary Power</u> .....	H.P.	135,974	165	11,100	5,125
Steam reciprocating engines .....	No.	28	1	7	5
Total capacity .....	H.P.	12,255	75	3,565	1,475
Steam turbines .....	No.	38	...	3	4
Total capacity .....	H.P.	117,881	...	7,370	3,600
Gas and oil engines .....	No.	31	2	1	1
Total capacity .....	H.P.	5,838	90	165	50
<u>Total Secondary Power</u> .....	K.V.A.	116,800	48	9,466	3,793
<u>Municipal Stations</u>					
<u>Total Primary Power</u> .....	H.P.	71,457	...	3,501	900
Steam reciprocating engines .....	No.	16	...	2	2
Total capacity .....	H.P.	7,129	...	423	375
Steam turbines .....	No.	14	...	3	...
Total capacity .....	H.P.	60,572	...	2,658	...
Gas and oil engines .....	No.	22	...	4	2
Total capacity .....	H.P.	3,756	...	420	525
<u>Total Secondary Power</u> .....	K.V.A.	60,444	...	2,731	597

TABLE 8 - POLE LINE MILEAGE, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
12,122	24,083	3,316	3,555	3,753	4,982
21.56	42,84	5.90	6.32	6.68	8.86
1,699	2,562	744	...	...	40
135	58	540	...	...	...
9,720	20,140	1,976	3,530	3,703	4,831
...	485	...	...	...	...
568	838	56	25	50	61
11,670	2,382	1,188	1,584	2,987	4,464
252	209	193	648	38	1,927
11,418	2,173	995	936	2,949	2,537
11,412	2,163	919	...	2,192	2,482
6	10	76	936	757	55
452	21,701	2,128	1,971	766	518
159	6,475	1,340	184	375	373
293	15,226	788	1,787	391	145
283	15,203	730	...	17	124
10	23	58	1,787	374	21
411	6,684	1,533	832	413	2,300
11,711	17,399	1,783	2,723	3,340	2,682
11,695	17,366	1,649	...	2,209	2,606
16	33	134	2,723	1,131	76

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1934

38,547	42,551	32,921	...	22,070	50,551
18.58	20.51	15.87	...	10.64	24.37
3	8	3	...	10	3
2,250	2,600	3,206	...	4,440	975
8	7	7	...	5	15
36,224	37,000	28,840	...	16,250	46,511
3	9	8	...	7	16
73	2,951	875	...	1,330	3,065
34,478	35,358	29,250	...	19,168	42,355
27,823	9,355	12,000	...	21,130	49,276
3	2	...	...	9	1
2,250	450	...	...	3,990	450
6	3	3	...	5	14
25,500	6,800	12,000	...	16,250	46,361
3	5	...	...	4	15
73	2,105	...	...	890	2,465
24,478	8,063	11,250	...	18,390	41,312
10,724	33,196	20,921	...	940	1,275
...	6	3	...	1	2
...	2,150	3,206	...	450	525
2	4	4	...	...	1
10,724	30,200	16,840	...	...	150
...	4	8	...	3	1
...	846	875	...	490	600
10,000	27,295	18,000	...	778	1,043

TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total Primary Power</u> ..... H.P.	7,061,592	5,692	156,601	136,370
Per cent of total for Canada .....	100.00	0.08	2.22	1.94
Water wheels and turbines ..... No.	805	9	54	16
Total capacity ..... H.P.	6,560,674	464	81,566	105,485
Steam reciprocating engines ..... No.	103	1	10	12
Total capacity ..... H.P.	31,944	75	4,063	4,915
Steam turbines ..... No.	110	3	18	9
Total capacity ..... H.P.	432,198	4,173	69,788	25,300
Gas and oil engines ..... No.	388	7	17	9
Total capacity ..... H.P.	36,776	980	1,184	1,170
<u>Total Dynamo Capacity</u> ..... K.V.A.	5,877,199	4,977	130,751	115,166
Per cent of total for Canada .....	100.00	0.08	2.22	1.96
Dynamos, A.C. .... No.	1,178	16	93	39
Total capacity ..... K.V.A.	5,870,134	4,969	130,361	114,038
Dynamos, D.C. .... No.	201	1	6	7
Total capacity ..... Kw.	7,065	8	390	1,128
<u>Commercial Stations</u>				
<u>Total Primary Power</u> ..... H.P.	5,097,613	4,802	86,245	114,735
Water wheels and turbines ..... No.	542	9	19	10
Total capacity ..... H.P.	4,817,600	464	15,106	92,650
Steam reciprocating engines ..... No.	62	1	8	10
Total capacity ..... H.P.	18,805	75	3,640	4,540
Steam turbines ..... No.	68	3	15	7
Total capacity ..... H.P.	239,254	4,173	67,130	17,300
Gas and oil engines ..... No.	287	2	7	5
Total capacity ..... H.P.	21,954	90	369	245
<u>Total Dynamo Capacity</u> ..... K.V.A.	4,296,336	4,212	72,567	97,716
Dynamos, A.C. .... No.	757	11	43	25
Total capacity ..... K.V.A.	4,291,263	4,204	72,177	96,588
Dynamos, D.C. .... No.	180	1	6	7
Total capacity ..... Kw.	5,073	8	390	1,128
<u>Municipal Stations</u>				
<u>Total Primary Power</u> ..... H.P.	1,963,979	890	70,356	22,135
Water wheels and turbines ..... No.	263	...	35	6
Total capacity ..... H.P.	1,743,074	...	66,460	12,835
Steam reciprocating engines ..... No.	41	...	2	2
Total capacity ..... H.P.	13,139	...	423	375
Steam turbines ..... No.	42	...	3	2
Total capacity ..... H.P.	192,944	...	2,658	8,000
Gas and oil engines ..... No.	101	5	10	4
Total capacity ..... H.P.	14,822	890	815	925
<u>Total Dynamo Capacity</u> ..... K.V.A.	1,580,863	765	58,184	17,450
Dynamos, A.C. .... No.	421	5	50	14
Total capacity ..... K.V.A.	1,578,871	765	58,184	17,450
Dynamos, D.C. .... No.	21	...	...	...
Total capacity ..... Kw.	1,992	...	...	...



TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,342,452 47.33	2,047,247 28.99	473,358 6.70	135,446 1.92	151,435 2.15	612,491 8.67
256 3,303,705 3 2,250 8 36,224 6 273	337 2,003,478 20 3,288 7 37,000 12 3,481	40 436,925 11 4,341 8 29,240 44 2,852	... ... 5 2,468 23 115,162 183 17,816	18 69,520 29 8,767 18 68,300 75 4,848	75 559,531 12 1,777 16 47,011 35 4,172
2,872,465 48.87 271 2,871,934 4 531	1,652,186 28.12 356 1,651,527 8 659	384,086 6.54 86 383,801 12 285	115,031 1.96 110 113,900 98 1,131	124,296 2.11 85 121,628 49 2,668	478,241 8.14 122 477,976 16 265
3,302,433 231 3,274,570 3 2,250 6 25,500 4 113	518,337 170 508,689 8 743 3 6,800 5 2,105	320,623 21 307,800 1 30 3 12,000 22 793	49,827 ... ... 2 1,118 9 37,940 139 10,769	99,890 16 68,560 22 5,472 7 21,550 71 4,308	600,721 66 549,761 7 937 15 46,861 32 3,162
2,838,791 241 2,838,260 4 531	439,067 174 438,882 6 185	253,947 36 253,882 6 65	40,875 61 39,892 87 983	79,342 62 77,824 47 1,518	469,819 104 469,554 16 265
40,019 25 29,135 ... ... 2 10,724 2 160	1,528,910 167 1,494,789 12 2,545 4 30,200 7 1,376	152,735 19 129,125 10 4,311 5 17,240 22 2,059	85,619 ... ... 3 1,350 14 77,222 44 7,047	51,545 2 960 7 3,295 11 46,750 4 540	11,770 9 9,770 5 840 1 150 3 1,010
33,674 30 33,674 ... ...	1,213,119 182 1,212,645 2 474	130,139 50 129,919 6 220	74,156 49 74,008 11 148	44,954 23 43,804 2 1,150	8,422 18 8,422 ... ...

Table 11 - MAIN PLANT EQUIPMENT, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<b>Total Primary Power</b> ..... H.P.	6,854,161	5,527	142,000	130,845
Per cent of total for Canada	100.00	0.08	2.07	1.91
Water wheels and turbines ..... No.	805	9	54	16
Total capacity ..... H.P.	6,560,674	464	81,566	105,485
Steam reciprocating engines ..... No.	59	...	1	5
Total capacity ..... H.P.	12,560	...	75	3,065
Steam turbines ..... No.	58	3	12	5
Total capacity ..... H.P.	253,745	4,173	59,760	21,700
Gas and oil engines ..... No.	335	5	12	6
Total capacity ..... H.P.	27,182	890	599	595
<b>Total Dynamo Capacity</b> ..... K.V.A.	5,699,955	4,929	118,554	110,776
Per cent of total for Canada	100.00	0.09	2.08	1.94
Dynamos, A.C. .... No.	1,047	15	74	26
Total capacity ..... K.V.A.	5,694,986	4,921	118,464	109,881
Dynamos, D.C. .... No.	194	1	5	6
Total capacity ..... Kw.	4,969	8	90	895
<b>Commercial Stations</b>				
<b>Total Primary Power</b> ..... H.P.	4,961,639	4,637	75,145	109,610
Per cent of total for Canada	100.00	0.09	1.52	2.21
Water wheels and turbines ..... No.	542	9	19	10
Total capacity ..... H.P.	4,817,600	464	15,106	92,650
Steam reciprocating engines ..... No.	34	...	1	5
Total capacity ..... H.P.	6,550	...	75	3,065
Steam turbines ..... No.	30	3	12	3
Total capacity ..... H.P.	121,373	4,173	59,760	13,700
Gas and oil engines ..... No.	256	...	6	4
Total capacity ..... H.P.	16,116	...	204	195
<b>Total Dynamo Capacity</b> ..... K.V.A.	4,179,536	4,164	63,101	93,923
Per cent of total for Canada	100.00	0.10	1.51	2.25
Dynamos, A.C. .... No.	674	10	33	16
Total capacity ..... K.V.A.	4,176,109	4,156	63,011	93,028
Dynamos, D.C. .... No.	174	1	5	6
Total capacity ..... Kw.	3,427	8	90	895
<b>Municipal Stations</b>				
<b>Total Primary Power</b> ..... H.P.	1,892,522	890	66,855	21,235
Per cent of total for Canada	100.00	0.05	3.53	1.12
Water wheels and turbines ..... No.	263	...	35	6
Total capacity ..... H.P.	1,743,074	...	66,460	12,835
Steam reciprocating engines ..... No.	25	...	...	...
Total capacity ..... H.P.	6,010	...	...	...
Steam turbines ..... No.	28	...	...	2
Total capacity ..... H.P.	132,372	...	...	8,000
Gas and oil engines ..... No.	79	5	6	2
Total capacity ..... H.P.	11,066	890	395	400
<b>Total Dynamo Capacity</b> ..... K.V.A.	1,520,419	765	55,453	16,853
Per cent of total for Canada	100.00	0.05	3.65	1.11
Dynamos, A.C. .... No.	373	5	41	10
Total capacity ..... K.V.A.	1,518,877	765	55,453	16,853
Dynamos, D.C. .... No.	20	...	...	...
Total capacity ..... Kw.	1,542	...	...	...
<b>Hydraulic Stations</b>				
<b>Total Dynamo Capacity</b> ..... K.V.A.	5,452,535	414	67,979	91,163
Per cent of total for Canada	100.00	0.01	1.25	1.67
Dynamos, A.C. .... No.	788	7	54	15
Total capacity ..... K.V.A.	5,451,726	406	67,979	91,038
Dynamos, D.C. .... No.	11	1	...	1
Total capacity ..... Kw.	809	8	...	125
<b>Fuel Stations</b>				
<b>Total Dynamo Capacity</b> ..... K.V.A.	247,420	4,515	50,575	19,613
Per cent of total for Canada	100.00	1.83	20.44	7.93
Dynamos, A.C. .... No.	259	8	20	11
Total capacity ..... K.V.A.	243,260	4,515	50,485	18,843
Dynamos, D.C. .... No.	183	...	5	5
Total Capacity ..... Kw.	4,160	...	90	770

Table 11 - MAIN PLANT EQUIPMENT, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,303,905 48.20 256	2,004,696 29.25 337	x 440,437 6.43 40	x 135,446 1.98 ...	129,365 1.89 18	561,940 8.19 75
3,303,705 ... ...	2,003,478 12 688	436,925 8 1,135	... 5 2,468	69,520 19 4,327	559,531 9 802
... ... 3 200	... ... 3 530	1 400 36 1,977	23 115,162 183 17,816	13 52,050 68 3,468	1 500 19 1,107
2,837,987 49.79 259	1,616,828 28.37 338	354,836 6.22 69	115,031 2.02 110	105,128 1.84 64	435,886 7.55 92
2,837,456 4 531	1,616,619 7 209	354,551 12 285	113,900 98 1,131	103,560 47 1,568	435,634 14 252
3,274,610 66.00 231	508,982 10.26 170	308,623 6.22 21	49,827 1.00 ...	78,760 1.59 16	551,445 11.11 66
3,274,570 ... ...	508,689 6 293	307,800 1 30	... 2 1,118	68,560 13 1,482	549,761 6 487
... ... 1 40	... ... ... ...	... ... 22 793	9 37,940 139 10,769	2 5,300 67 3,418	1 500 17 697
2,814,313 67.33 231	431,004 10.31 166	242,697 5.81 33	40,875 0.98 61	60,952 1.46 46	428,507 10.25 78
2,813,782 4 531	430,819 6 185	242,632 6 65	39,892 87 983	60,534 45 418	428,255 14 252
29,295 1.55 25	1,495,714 79.03 167	131,814 6.97 19	85,619 4.53 ...	50,605 2.67 2	10,495 0.55 9
29,135 ... ...	1,494,789 6 395	129,125 7 1,105	... 3 1,350	960 6 2,845	9,770 3 315
... ... 2 160	... ... 3 530	1 400 14 1,184	14 77,222 44 7,047	11 46,750 1 50	... ... 2 410
23,674 1.56 28	1,185,824 77.99 172	112,139 7.37 36	74,156 4.88 49	44,176 2.90 18	7,379 0.49 14
23,674 ... ...	1,185,800 1 24	111,919 6 220	74,008 11 148	43,026 2 1,150	7,379 ... ...
2,837,812 52.04 256	1,615,909 29.64 327	351,912 6.45 40	... ... ...	53,200 0.98 14	434,146 7.96 75
2,837,281 4 531	1,615,834 3 75	351,912 ... ...	... ... ...	53,200 ... ...	434,076 2 70
175 0.07 3	919 0.37 11	2,924 1.18 29	115,031 46.49 110	51,928 20.99 50	1,740 0.70 17
175 ... ...	785 4 134	2,639 12 285	113,900 98 1,131	50,360 47 1,568	1,558 12 182

x - Capacity of one hydraulic station in Saskatchewan included in Manitoba.



TABLE 12 - MAIN PLANT EQUIPMENT CLASSIFIED, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>Primary Power</b> ..... H.P.	6,854,161	5,527	142,000	130,845	3,303,905
Water wheels and turbines ..... No.	805	9	54	16	256
Total H.P.	6,560,674	464	81,566	105,485	3,303,705
Under 500 H.P. .... No.	157	9	23	3	25
Total H.P.	30,185	464	5,366	935	4,186
500 - 2,000 H.P. .... No.	205	...	17	2	61
Total H.P.	228,639	...	19,860	2,050	65,819
2,000 - 5,000 H.P. .... No.	122	...	10	6	32
Total H.P.	364,325	...	33,040	17,500	93,750
5,000 - 10,000 H.P. .... No.	106	...	4	1	36
Total H.P.	695,825	...	23,300	5,000	249,450
10,000 - 15,000 H.P. .... No.	76	...	...	...	28
Total H.P.	883,300	...	...	...	302,100
15,000 - 25,000 H.P. .... No.	56	...	...	4	17
Total H.P.	1,030,500	...	...	80,000	352,500
25,000 H.P. and up ..... No.	83	...	...	...	57
Total H.P.	3,327,900	...	...	...	2,235,900
<b>Steam reciprocating engines</b> ..... No.	59	...	1	5	...
Total H.P.	12,560	...	75	3,065	...
Under 500 H.P. .... No.	51	...	1	2	...
Total H.P.	5,500	...	75	165	...
500 H.P. and up ..... No.	8	...	...	3	...
Total H.P.	7,060	...	...	2,900	...
<b>Steam turbines</b> ..... No.	58	3	12	5	...
Total H.P.	253,745	4,173	59,760	21,700	...
Under 500 H.P. .... No.	2	...	...	...	...
Total H.P.	800	...	...	...	...
500 - 2,000 H.P. .... No.	13	2	1	1	...
Total H.P.	13,391	2,173	1,340	700	...
2,000 - 5,000 H.P. .... No.	27	1	6	3	...
Total H.P.	80,280	2,000	16,720	11,000	...
5,000 -10,000 H.P. and up ..... No.	16	...	5	1	...
Total H.P.	159,274	...	41,700	10,000	...
<b>Gas and oil engines</b> ..... No.	335	5	12	6	3
Total H.P.	27,182	890	599	595	200
<b>Secondary Power</b>					
<b>Dynamos, A.C. and D.C.</b> ..... No.	1,241	16	79	32	263
Total K.V.A.	5,699,955	4,929	118,554	110,776	2,837,987
<b>Dynamos, A.C.</b> ..... No.	1,047	15	74	26	259
Total K.V.A.	5,694,986	4,921	118,464	109,881	2,837,456
Under 50 K.V.A. .... No.	81	4	5	...	6
Total K.V.A.	2,380	133	188	...	205
50 - 200 K.V.A. .... No.	157	7	15	5	10
Total K.V.A.	17,257	738	1,458	656	983
200 - 500 K.V.A. .... No.	125	1	13	1	22
Total K.V.A.	38,599	300	4,038	375	7,397
500 - 1,000 K.V.A. .... No.	127	1	8	4	32
Total K.V.A.	93,442	625	6,080	2,875	24,280
1,000 - 5,000 K.V.A. .... No.	259	2	27	11	61
Total K.V.A.	599,880	3,125	67,025	28,475	138,045
5,000 - 10,000 K.V.A. .... No.	109	...	6	1	23
Total K.V.A.	753,367	...	39,675	7,500	146,900
10,000 - 15,000 K.V.A. .... No.	68	...	...	...	31
Total K.V.A.	734,165	...	...	...	318,000
15,000 - 25,000 K.V.A. .... No.	54	...	...	4	20
Total K.V.A.	1,019,500	...	...	70,000	403,250
25,000 K.V.A. and up ..... No.	67	...	...	...	54
Total K.V.A.	2,436,396	...	...	...	1,798,396
<b>Dynamos, D.C.</b> ..... No.	194	1	5	6	4
Total Kw.	4,969	8	90	895	531
Under 50 Kw. .... No.	182	1	4	3	3
Total Kw.	2,144	8	40	45	31
50 - 200 Kw. .... No.	8	...	1	2	...
Total Kw.	525	...	50	200	...
200 - 500 Kw. .... No.	1	...	...	...	...
Total Kw.	400	...	...	...	...
500 Kw. and up ..... No.	3	...	...	1	1
Total Kw.	1,900	...	...	650	500

TABLE 12 - MAIN PLANT EQUIPMENT CLASSIFIED, 1934

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal
2,004,696	440,437	135,446	129,365	561,940	4,961,639	1,892,522
337	40	...	18	75	542	263
2,003,478	436,925	...	69,520	559,531	4,817,600	1,743,074
67	1	...	10	19	104	53
13,503	125	...	1,920	3,686	17,246	12,939
116	...	...	...	9	115	90
129,640	...	...	...	11,270	124,354	104,285
56	4	...	2	12	87	35
163,035	12,800	...	8,000	36,200	264,275	100,050
29	21	...	4	11	74	32
186,100	130,000	...	23,600	78,375	499,725	196,100
35	5	...	...	8	57	19
417,700	66,000	...	...	97,500	647,100	236,200
18	3	...	2	12	38	18
289,500	60,000	...	36,000	212,500	741,000	289,500
16	6	...	...	4	67	16
804,000	168,000	...	...	120,000	2,523,900	804,000
12	8	5	19	9	34	25
688	1,135	2,468	4,327	802	6,550	6,010
12	8	3	16	9	30	21
688	1,135	618	2,017	802	2,550	2,950
...	...	2	3	...	4	4
...	...	1,850	2,310	...	4,000	3,060
...	1	23	13	1	30	28
...	400	115,162	52,050	500	121,373	132,372
...	1	1	...	...	...	2
...	400	400	...	...	...	800
...	...	6	2	1	8	5
...	...	6,678	2,000	500	8,221	5,170
...	...	9	8	...	14	13
...	...	26,210	24,350	...	38,186	42,094
...	...	7	3	...	8	8
...	...	81,874	25,700	...	74,966	84,308
3	36	183	68	19	256	79
530	1,977	17,816	3,468	1,107	16,116	11,066
345	81	208	111	106	848	393
1,616,828	354,836	115,031	105,128	435,886	4,179,536	1,520,419
338	69	110	64	92	674	373
1,616,619	354,551	113,900	103,560	435,634	4,176,109	1,518,877
8	14	24	11	9	54	27
218	340	776	280	240	1,605	775
34	11	37	20	18	99	58
3,998	1,054	4,377	1,992	2,001	10,218	7,039
40	5	22	11	10	61	64
12,246	1,557	6,781	3,075	2,830	18,235	20,364
66	...	7	3	6	73	54
48,740	...	4,466	2,088	4,288	53,172	40,270
99	14	13	14	18	170	89
201,785	46,350	28,750	42,375	43,950	397,163	202,717
48	11	4	2	14	66	43
354,592	70,750	25,000	11,250	97,700	451,005	302,362
23	5	2	1	6	51	17
247,040	56,000	25,000	12,500	75,625	555,565	178,600
8	9	1	2	10	45	9
154,000	178,500	18,750	30,000	165,000	846,750	172,750
12	...	...	...	1	55	12
594,000	...	...	...	44,000	1,842,396	594,000
7	12	98	47	14	174	20
209	285	1,131	1,568	252	3,427	1,542
4	10	98	45	14	166	16
59	160	1,131	418	252	1,877	267
3	2	...	...	...	6	2
150	125	...	...	...	400	125
...	...	...	1	...	...	1
...	...	...	400	...	...	400
...	...	...	1	...	2	1
...	...	...	750	...	1,150	750



TABLE 13 - ELECTRIC ENERGY GENERATED, 1934

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<b>ALL STATIONS</b>				
Total kilowatt hours generated ..... (thousands)	21,197,124	4,902	389,049	394,100
Per cent of total for Canada .....	100.00	0.02	1.84	1.86
Kilowatt hrs. generated by non-generating stns. (thousands)	4,009	...	3,709	...
Kilowatt hours generated by generating stns. (thousands)	21,193,115	4,902	385,340	394,100
K.V.A. capacity of generating stations .....	5,841,882	4,977	118,892	110,776
Ratio of output to maximum capacity ..... p.c.	41.6	11.2	37.0	40.6
Average kilowatt hours per K.V.A. ....	3,628	985	3,241	3,558
<b>GENERATING STATIONS</b>				
<b>Commercial Stations</b>				
<b>Total</b>				
Kilowatt hours generated ..... (thousands)	16,057,179	4,123	160,555	354,280
K.V.A. capacity .....	4,281,821	4,212	63,314	93,923
Ratio of output to maximum capacity ..... p.c.	43.1	11.2	28.9	43.1
Average kilowatt hours per K.V.A. ....	3,750	979	2,536	3,772
<b>Hydraulic Stations</b>				
Kilowatt hours generated ..... (thousands)	15,842,925	356	25,635	332,584
K.V.A. capacity .....	4,163,242	462	13,049	80,900
Ratio of output to maximum capacity ..... p.c.	43.7	8.8	22.4	46.9
Average kilowatt hours per K.V.A. ....	3,805	771	1,965	4,111
<b>Fuel Stations</b>				
Kilowatt hours generated ..... (thousands)	214,254	3,767	134,920	21,696
K.V.A. capacity .....	118,579	3,750	50,265	13,023
Ratio of output to maximum capacity ..... p.c.	20.6	11.5	30.6	19.0
Average kilowatt hours per K.V.A. ....	1,807	1,005	2,684	1,666
<b>Municipal Stations</b>				
<b>Total</b>				
Kilowatt hours generated ..... (thousands)	5,135,936	779	224,785	39,820
K.V.A. capacity .....	1,560,061	765	55,578	16,853
Ratio of output to maximum capacity ..... p.c.	37.6	11.6	46.2	27.0
Average kilowatt hours per K.V.A. ....	3,292	1,018	4,044	2,363
<b>Hydraulic Stations</b>				
Kilowatt hours generated ..... (thousands)	4,976,396	...	224,374	21,266
K.V.A. capacity .....	1,431,220	...	55,268	10,263
Ratio of output to maximum capacity ..... p.c.	39.7	...	46.3	23.7
Average kilowatt hours per K.V.A. ....	3,477	...	4,060	2,072
<b>Fuel Stations</b>				
Kilowatt hours generated ..... (thousands)	159,540	779	411	18,554
K.V.A. capacity .....	128,841	765	310	6,590
Ratio of output to maximum capacity ..... p.c.	14.1	11.6	15.1	32.1
Average kilowatt hours per K.V.A. ....	1,238	1,018	1,326	2,815
<b>Total Hydraulic Stations</b>				
Kilowatt hours generated ..... (thousands)	20,819,321	356	250,009	353,850
K.V.A. capacity .....	5,594,462	462	68,317	91,163
Ratio of output to maximum capacity ..... p.c.	42.7	8.8	41.8	44.3
Average kilowatt hours per K.V.A. ....	3,721	771	3,660	3,882
Kilowatt hours generated by water power ..... (thousands)	20,817,309	335	249,867	353,850
Kilowatt hours generated by auxiliary plants. (thousands)	2,012	21	142	...
<b>Total Fuel Stations</b>				
Kilowatt hours generated ..... (thousands)	373,794	4,546	135,331	40,250
K.V.A. capacity .....	247,420	4,515	50,575	19,613
Ratio of output to maximum capacity ..... p.c.	17.2	11.5	30.5	23.4
Average kilowatt hours per K.V.A. ....	1,511	1,007	2,676	2,052
<b>Consumption of Electric Energy (Thousands of Kilowatt Hours)</b>				
Total kilowatt hours generated .....	21,197,124	4,902	389,049	394,100
Kilowatt hours imported from the United States .....	642	...	...	61
Kilowatt hours imported from other provinces .....	...	...	...	5,458
Kilowatt hours exported to the United States .....	1,243,079	...	...	13,189
Kilowatt hours exported to other provinces .....	...	...	...	...
Kilowatt hours for consumption in Canada .....	19,954,687	4,902	389,049	386,430
Domestic service .....	1,717,090	1,605	23,637	19,607
Commercial light .....	808,085	1,011	12,965	12,346
Small power .....	424,126	285	8,701	5,656
Large power .....	14,037,682	951	306,372	331,908
Street lighting .....	187,713	244	4,364	3,214
Free service (other than street lighting) .....	17,478	...	749	468
Losses .....	2,762,513	806	32,261	13,231

† Excludes exports to other provinces and/or to the United States.



TABLE 13 - ELECTRIC ENERGY GENERATED, 1934

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
11,335,987 53.48 ... 11,335,987 2,862,465 45.7 3,960	6,113,595 28.84 ... 6,113,595 1,648,827 42.3 3,708	1,183,381 5.58 300 1,183,081 379,836 35.6 3,115	134,033 0.63 ... 134,033 115,031 13.3 1,165	193,002 0.91 ... 193,002 123,518 17.8 1,563	1,449,075 6.84 ... 1,449,075 477,560 34.6 3,034
11,294,050 2,838,791 45.9 3,978	1,866,514 437,748 48.7 4,264	752,281 253,947 33.8 2,962	39,312 40,875 11.0 962	150,520 79,342 21.7 1,897	1,435,544 469,669 34.9 3,057
11,294,001 2,838,751 45.9 3,979	1,866,390 437,533 48.7 4,266	751,663 253,350 33.9 2,967	... ... ... ...	139,647 70,740 22.5 1,974	1,432,649 468,457 34.9 3,058
49 40 14.0 1,225	124 215 6.6 577	618 597 11.8 1,035	39,312 40,875 11.0 962	10,873 8,602 14.4 1,264	2,895 1,212 27.3 2,389
41,937 23,674 20.2 1,771	4,247,081 1,211,079 40.0 3,507	430,800 125,889 39.1 3,422	94,721 74,156 14.6 1,277	42,482 44,176 11.0 962	13,531 7,891 19.6 1,715
41,858 23,539 20.3 1,778	4,246,399 1,210,375 40.0 3,508	428,018 123,562 39.5 3,464	... ... ... ...	1,524 850 20.5 1,793	12,957 7,363 20.1 1,760
79 135 6.7 585	682 704 11.1 969	2,782 2,327 13.7 1,196	94,721 74,156 14.6 1,277	40,958 43,326 10.8 945	574 528 12.4 1,087
11,335,859 2,862,290 45.7 3,960 11,335,858 1	6,112,789 1,647,908 42.3 3,709 6,112,183 606	1,179,681 376,912 35.7 3,130 1,179,599 82	... ... ... ... ... ...	141,171 71,590 22.5 1,972 140,944 227	1,445,606 475,820 34.7 3,038 1,444,673 933
128 175 8.3 731	806 919 10.0 877	3,400 2,924 13.3 1,163	134,033 115,031 13.3 1,165	51,831 51,928 11.4 998	3,469 1,740 22.8 1,994
11,335,987 53 ... 373 2,163,882 9,171,785 237,322 178,456 85,600 + 7,757,368 37,230 5,083 870,726	6,113,595 ... 2,158,424 1,229,089 ... 7,042,930 980,978 363,427 210,234 + 4,010,299 92,764 1,174 1,384,054	1,183,381 164 ... ... ... 1,183,545 282,067 129,707 54,943 525,258 17,868 4,940 168,762	134,033 23 ... ... ... 134,056 34,906 17,370 18,153 36,673 7,210 71 19,673	193,002 341 1,605 ... ... 194,948 30,378 23,513 28,978 65,817 7,664 1,555 37,043	1,449,075 ... ... 428 1,605 ... 1,447,042 106,590 69,289 11,577 + 1,003,036 17,155 3,438 235,957

TABLE 14 - FUEL, 1934

Provinces	Bituminous Coal			
	Canadian		Imported	
	Quantity Tons	Value \$	Quantity Tons	Value \$
Canada .....	288,961	1,144,897	3,881	17,860
Prince Edward Island .....	4,978	29,135	...	...
Nova Scotia .....	113,305	408,734	...	...
New Brunswick .....	33,736	129,871	3,156	14,800
Quebec .....	...	...	...	...
Ontario .....	90	490	725	3,060
Manitoba .....	...	...	...	...
Saskatchewan .....	130,954	559,074	...	...
Alberta .....	3,458	9,935	...	...
British Columbia and Yukon .....	2,440	7,658	...	...

	Fuel Oil	
	Quantity Gal.	Value \$
Canada .....	2,777,795	293,878
Prince Edward Island .....	88,351	9,599
Nova Scotia .....	112,493	11,798
New Brunswick .....	10,449	1,564
Quebec .....	48,986	3,800
Ontario .....	164,499	13,069
Manitoba .....	235,782	32,513
Saskatchewan .....	1,640,549	164,740
Alberta .....	195,586	29,896
British Columbia and Yukon .....	281,100	26,899

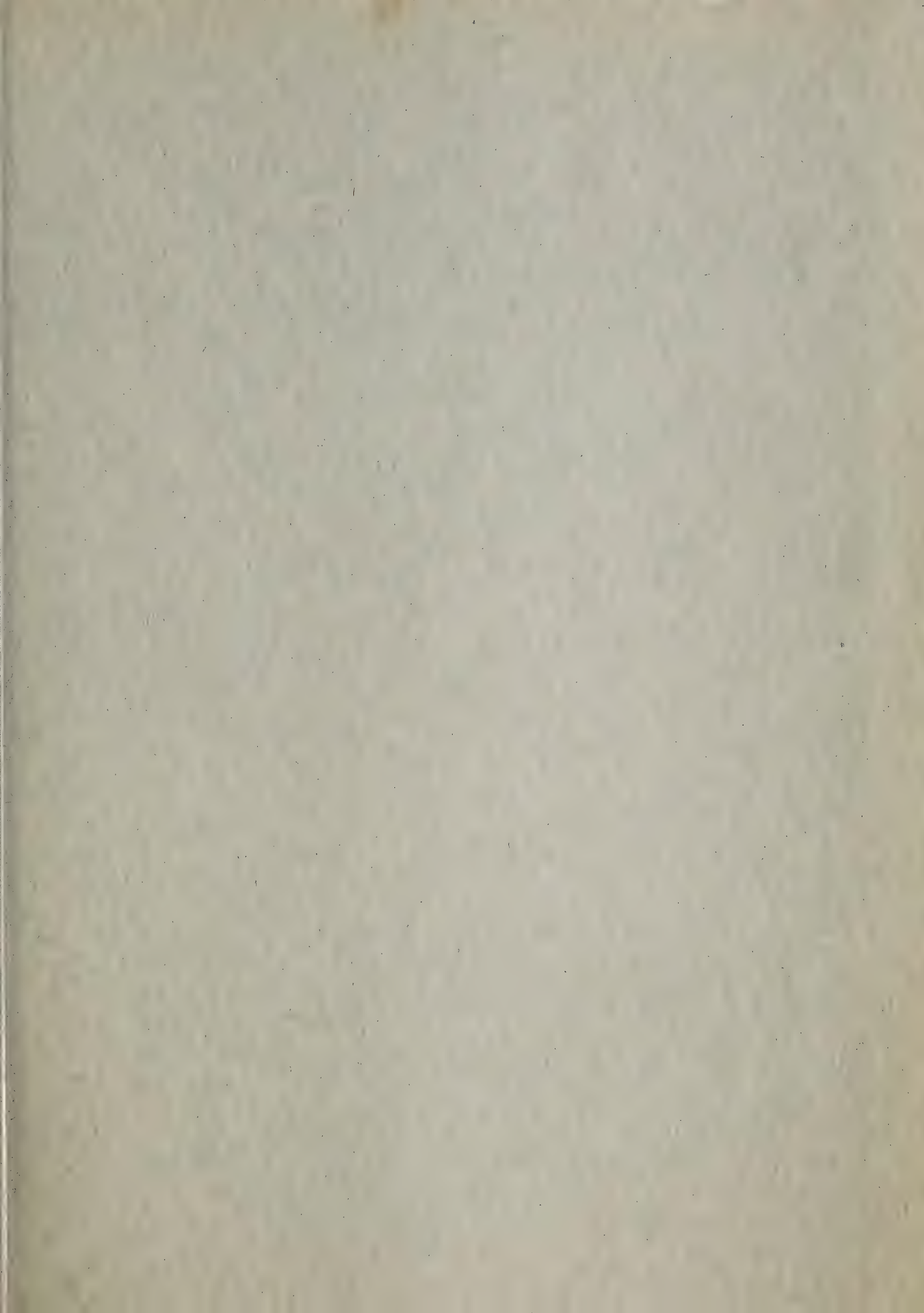
Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu. ft.

TABLE 14 - FUEL, 1934

Lignite Coal Canadian		Gasolene		Kerosene	
Quantity Tons	Value \$	Quantity Gal.	Value \$	Quantity Gal.	Value \$
106,394	154,880	135,386	18,819	52,871	11,350
...	...	60	19	90	23
...	...	...	...	...	...
...	...	109,000	10,500	20,518	4,260
...	...	155	40	...	...
...	...	...	...	...	...
3,596	13,206	723	216	6,600	1,445
22,651	37,320	11,184	3,442	18,025	3,927
80,147	104,354	14,264	4,602	7,614	1,685
...	...	...	...	24	10
Wood		Natural Gas		Other Fuel	Total Value
Quantity Cords	Value \$	Quantity 1,000 cu. ft.	Value \$	Value \$	\$
12,308	33,648	315,772	9,501	316,787	2,001,620
100	400	...	...	...	39,176
...	...	...	...	313,487	734,019
30	100	...	...	...	161,095
...	...	...	...	...	3,840
1,460	2,920	...	...	1,200	20,739
5,744	18,719	...	...	2,100	68,199
59	124	...	...	...	768,627
4,160	6,029	315,772	9,501	...	166,002
755	5,356	...	...	...	39,923













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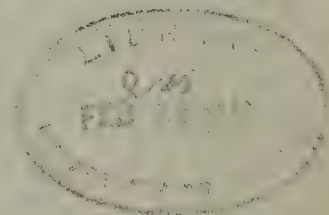
1935

*Electric power stations*

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

1935

(Prepared in collaboration with the Dominion  
Water and Power Bureau, Department of  
Mines and Resources)



Published by Authority of the HON. W. D. EULER, M.P.,  
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**OTTAWA**

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Dominion Statistician, R.H. COATS, LL. D., F.R.S.C., F.S.S. (Hon.)

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CENTRAL ELECTRIC STATION INDUSTRY, 1935

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 27 stations which were holding generating equipment classed as auxiliary plant equipment. Twenty-one of them purchased all their electric energy and the remaining six generated only 740,000 kilowatt hours. This explains the rather anomalous item in table 13 showing the output of non-generating stations.

Included in these statistics are those of some stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants, the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual report are for comparable periods and the annual reports are also comparable.

The output of central electric stations rose fairly continuously up to May, 1930, and for the following two years declines were recorded, but from the middle of 1932 to the end of 1936 the improvement has been fairly steady and rapid and the index number of monthly productions reached a peak at 226 for October, 1936, the average of 1926 being 100. The low point reached in 1932 was an index number of 123 for July and the previous high point was 156 for May, 1930.

The total output for the year was 23,283,033,000 kilowatt hours which, however, was only 44.8 per cent of the rated capacity of the equipment. Of course a ratio of 100 per cent is not possible with varying loads, but in 1928 the ratio was 51.2 per cent. The 1935 ratio was an increase of 3.2 points over the 1934 ratio and it was due to several causes, including increased consumption in mines and manufacturing, especially the pulp and paper mills, and in commercial lighting and domestic uses. An increasing quantity of off-peak or secondary power has been produced for consumption in electric boilers which in 1935 amounted to 6,312,387,000 kilowatt hours, or 27 per cent of the total output. The corresponding figures for 1934 were 5,337,133,000 kilowatt hours and 25 per cent. Thus, with an increase in total output of 2,085,909,000 kilowatt hours, or 9.8 per cent, this secondary power increased 975,254,000 kilowatt hours, or 18.3 per cent. Exports of surplus power to the United States decreased by 14,330,450 kilowatt hours, but total exports increased from 1,243,078,795 kilowatt hours in 1934 to 1,359,020,541 kilowatt



hours, or by 115,941,746 kilowatt hours, which left 15,612,281,000 kilowatt hours for other uses in Canada, including line and transformer losses. This was 994,727,000 kilowatt hours, or 6.8 per cent, above the firm power consumption for 1934. Another use for electric power which has been advancing rapidly is in electric furnaces. Approximately seven per cent of the total production was used in this manner during 1935 and refining of metals by electrolytic processes consumed about three per cent. The pulp and paper industry is the largest single consumer of the output of central electric stations, taking 5,563,760,000 kilowatt hours for boilers and 3,813,551,000 kilowatt hours for power, lighting, etc., and, in addition, it produced 1,212,952,000 kilowatt hours for use in its mills. This industry which has been increasing its output of pulp, paper and kindred products at a rapid rate has been an important factor in the growth of the central electric station output. The consumption for domestic lighting (lighting of residences) and other domestic uses continued to grow, increasing from 1,717,090,000 kilowatt hours in 1934 to 1,769,845,000 kilowatt hours, or 3.1 per cent.

Electricity is exported from Canada only by license granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1936, the export duty amounted to \$305,710 as against \$265,872 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export for the calendar year 1935, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES (CALENDAR YEAR 1935)

Company	Produced for Export Kilowatt Hours	Exported Kilowatt Hours
Hydro Electric Power Commission of Ontario .....	376,597,800	372,001,692
" " " " " (Surplus) .....	181,971,200	178,944,660
Cedar Rapids Manufacturing and Power Co., Ltd. ....	442,044,771	423,628,980
Canadian Niagara Power Co., Ltd. ....	359,738,400	328,112,617
" " " " " (Surplus) .....	25,498,800	25,498,800
Western Power Company of Canada, Ltd. ....	35,706	34,200
Ontario and Minnesota Power Co., Ltd. ....	15,229,400	15,229,400
Maine and New Brunswick Electric Power Co. ....	13,838,810	13,239,529
British Columbia Electric Railway Co., Ltd. ....	203,558	177,095
Northport Power and Light Co. ....	291,072	291,072
Maritime Electric Company, Ltd. ....	1,180,280	1,180,280
Southern Canada Power Company ....	386,846	386,846
Northern British Columbia Power Co. ....	40,970	40,970
Fraser Companies, Ltd. ....	5,598,700	5,566,000
Detroit and Windsor Subway Company ....	254,400	254,400
Total .....	1,422,910,713	1,364,586,541
Kilowatt hours produced for export and exported by central electric stations only .....	1,417,312,013	1,359,020,541

Of the total output of 23,283,033,000 kilowatt hours, 22,883,735,000 kilowatt hours, or over 98 per cent, were produced by water power, whereas only 395,282,000 kilowatt hours were produced by plants using only thermal engines and 4,016,000 kilowatt hours were produced by auxiliary equipment in hydraulic and non-generating stations. The total hydraulic installation in all industries in Canada in 1935, as compiled by the Dominion Water and Power Bureau, was 7,909,115 horse power which was about 18 per cent of the total that the recorded falls would warrant installing under present day practices. The available and developed water power in Canada is shown in the following table.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24-hour power at 80% efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 3 5	1 9 3 6
(1)	(2) H.P.	(3) H.P.	(4) H.P.	(5) H.P.
Prince Edward Island .....	3,000	5,300	2,439	2,439
Nova Scotia .....	20,800	128,300	116,367	120,667
New Brunswick .....	68,600	169,100	133,681	133,681
Quebec .....	8,459,000	13,064,000	3,853,320	3,883,320
Ontario .....	5,330,000	6,940,000	2,560,155	2,561,905
Manitoba .....	3,309,000	5,344,500	392,825	392,825
Saskatchewan .....	542,000	1,082,000	42,035	42,035
Alberta .....	390,000	1,049,500	71,597	71,597
British Columbia .....	1,931,000	5,103,500	718,497	718,922
Yukon and Northwest Territories .....	294,000	731,000	18,199	18,199
CANADA .....	20,347,400	33,617,200	7,909,115	7,945,590

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals.

With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power.

The following table shows the provincial production plus imports less exports, the net amount being the consumption within each province including all line losses; the deliveries to electric boilers in each province are shown here segregated from other uses. The consumption of electric energy is further analysed in Table 13.

CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)

(Thousands of Kilowatt Hours)

Province	Secondary Power delivered to Electric Boilers	Other Uses and Line Losses	T o t a l		I n c r e a s e Or Decrease (-)	
			1 9 3 5	1 9 3 4	1935 over 1934	
					Kw.Hrs.	Per Cent
Prince Edward Island ....	...	5,127	5,127	4,902	225	4.59
Nova Scotia .....	...	389,144	389,144	389,049	95	.02
New Brunswick .....	28,087	353,165	381,252	386,430	- 5,178	- 1.34
Quebec .....	4,583,349	5,778,993	10,362,342	9,171,785	1,190,557	12.98
Ontario .....	1,385,134	6,184,799	7,569,933	7,042,930	527,003	7.48
Manitoba .....	311,120	1,031,151	1,342,271	1,183,545	158,726	13.40
Saskatchewan .....	...	138,479	138,479	134,056	4,423	3.30
Alberta .....	...	210,144	210,144	194,948	15,196	7.79
British Columbia & Yukon.	4,697	1,521,279	1,525,976	1,447,042	78,934	5.45
CANADA .....	6,312,387	15,612,281	21,924,668	19,954,687	1,969,981	9.87



TABLE 1 - COMPARATIVE SUMMARY, 1926-1935

During the year the number of hydro-electric plants was increased by two and the number of fuel plants, or plants using thermal engines exclusively, was reduced by nine. The capital has been increasing steadily and in the past ten years has doubled; the increase during 1935 was \$28,969,000, or 2.0 per cent. During 1935 revenue increased by \$2,714,341, or 2.2 per cent, and expenses (wages, power purchased, fuel and taxes) were heavier than in 1934 by \$3,676,313. Pole line mileage was extended 1,388 miles and the number of customers was larger by 34,624. Since 1926, 291,346 domestic customers have been added to the lines and the production of electricity has almost doubled. The generator capacity of the industry has also doubled since 1926 and at the close of 1935 amounted to 5,893,984 kilovolt amperes.

TABLE 2 - POWER PLANTS

The definition of a central electric station as adopted for census purposes was given at the beginning of this report. Some organizations operate several systems which are in different municipalities and which are not connected by transmission lines, and, in other cases, many municipalities are served from one power plant or several inter-connected plants. The organizations reporting are counted as they report. If a commercial organization makes a separate report for each of its subsidiary companies each such subsidiary company is counted, and if it includes them all in one report they are counted as only one organization. The nature of control is so varied that it is not practicable to do otherwise. The power plants shown in this table are individual plants, counted irrespective of ownership or location. In some cases, two or more of these are operated by one company, some of them being close together and others, miles apart. During the year there was an addition of one power plant in Nova Scotia and one in Quebec and reductions of one plant in Manitoba, two in Saskatchewan, four in Alberta and two in British Columbia, making a net decrease of seven in the total.

TABLE 3 - CAPITAL

The capital employed in the industry is reported under three heads, viz., generation, transmission and distribution, and general. "Generation" includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. "Transmission and distribution" includes all transmission and distribution towers, poles, wires, cables and conduits and right of way, receiving stations and substations and sites, switchboards and step-up transformers in these and in power houses, step-down transformers, meters, etc. "General" includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal years, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. The averages of total capital per unit of power are more indicative of different classes of stations and service given than costs of similar installations. The same also applies to generation capital per unit of power, only to a lesser degree.

TABLE 4 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 Kw. and under, (5) power, large, over 50 Kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to



1932 this exception was not made and consequently the revenues of Ontario, New Brunswick and Alberta, which purchased power from other provinces, were lower than they should have been.<sup>#</sup> The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services and for commercial light, line losses were not included, the consumption for these two services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours sold including all line losses. The average revenue per kilowatt hour for domestic service continued to decrease although some of the provinces recorded increases. These averages are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters where different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average cost of 2.08 cents per kilowatt hour for all domestic services compares with an average of 5.03 cents in the United States.

<sup>#</sup> See 1933 report, page 5, for effect of this omission.

TABLE 5 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Salaries and wages increased from \$21,829,491 in 1934 to \$22,519,993, or by 3.2 per cent, all provinces except Ontario and Alberta showing larger pay rolls. The fuel bill also increased from \$2,001,620 to \$2,054,876. Taxes showed the largest increase of any during the past decade, growing from \$6,384,481 in 1934 to \$7,524,026. Commercial stations paid \$7,013,470, or 93 per cent of the total. More than half of the taxes paid by municipal stations was paid by stations in Ontario. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations.

TABLE 6 - EMPLOYEES

Ontario and Alberta stations reported decreases in the number of employees of 139 and 58 respectively but all other stations showed increases, the net increase for all stations being 368 employees. The table below analyses the hours of labour of wage earners in the industry. Approximately one-third of the employees worked a 48-hour week and two-thirds worked 48 hours or less per week.

Number of Wage-earners in Month of Highest Employment whose Regular Hours per Week were:

Hours per week-	40 hrs. or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 & over	Total
P.E. Island	2	-	-	-	27	-	-	-	-	-	7	36
Nova Scotia	111	3	26	8	283	20	111	75	5	91	103	836
New Brunswick	58	-	42	3	41	1	5	221	-	44	22	437
Quebec	294	16	817	4	1,335	57	152	283	8	170	174	3,310
Ontario	817	13	451	91	934	745	313	355	86	316	554	4,675
Manitoba	86	-	261	-	493	16	-	-	-	34	84	974
Saskatchewan	18	3	46	16	202	10	4	34	6	41	97	477
Alberta	127	11	12	34	169	6	-	-	-	3	-	356
B.C. and Yukon	378	2	166	2	443	32	16	4	-	2	9	1,054
CANADA	1,891	48	1,821	158	3,927	887	601	972	105	701	1,050	12,158
Per cent of Total	15.6	0.4	14.9	1.3	32.3	7.3	4.9	8.0	0.9	5.8	8.6	100

TABLE 7 - CUSTOMERS

As explained under table 4, stations are asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. The average number of domestic service customers per 100 population increased from 8.36 in 1920 to 12.82. These averages are based on the Bureau's estimated populations and each residence or family served is counted as one customer. These averages were first computed for 1920 and since then the average for Canada has increased from 8.36 to 12.82 or by 45 per cent. Alberta is the only province having its population increase at a faster rate than its domestic service customers. In New Brunswick the density more than doubled, in Nova Scotia it increased by 92 per cent, in Ontario 64 per cent, in Prince Edward Island 63 per cent, in Saskatchewan 37 per cent, in British Columbia 33 per cent, in Quebec 27 per cent, and in Manitoba 15 per cent. When comparing these rates of increase the densities at the beginning of the period should be analysed; for example, Manitoba had a density of 2.76 in 1920, or more than twice the density of New Brunswick and three times that of Prince Edward Island.

TABLE 8 - POLE LINE MILEAGE

Transmission and distribution lines have been combined in this table for the second year instead of being separated as in previous reports and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileages.

TABLES 9-10-11-12 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using fuel only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand the greater part of it is held strictly in reserve for emergencies, only 3,276,000 kilowatt hours being generated during the year by this auxiliary equipment. There was an increase of 3.5 per cent in the capacity of the equipment during the year. Quebec stations showed an increase of 172,000 horse power and Ontario stations an increase of 73,955 horse power, but increases in the other provinces were small and the total for Canada increased from 7,061,592 to 7,310,973 horse power including auxiliary plant equipment of 206,831 horse power. Large hydraulic turbines (over 25,000 H.P.) increased 4 in number and 237,000 horse power in capacity and the large generators also increased by 4 and 182,889 Kv.A. in capacity.

TABLE 13 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt hour meters, the kilowatt hours are estimated as best possible. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 Kv.A. dynamo for a year would be 8,760,000 kilowatt hours.



but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio for 1935 was 44.8 per cent, an increase of 3.2 points over 1934. The highest ratio was reached in 1928 with 51.2 per cent and the ratio has decreased each succeeding year to 1932. While this ratio will not reach 100 per cent, the present installations could undoubtedly meet a demand considerably greater than the 1935 load. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale has been growing quite rapidly. In 1924 this secondary power amounted to only 260,489,000 kilowatt hours but in 1935 it had grown to 6,312,387,000 kilowatt hours.

ELECTRICITY SOLD FOR USE IN ELECTRIC BOILERS  
(Thousands of Kilowatt Hours)

Month	1932	1933	1934	1935
January .....	228,107	296,520	407,857	554,218
February .....	221,647	303,184	395,227	500,103
March .....	244,092	312,943	445,842	518,053
April .....	263,285	302,020	493,601	515,778
May .....	224,536	292,976	474,838	523,922
June .....	206,264	277,626	436,102	462,598
July .....	198,839	277,769	356,157	427,328
August .....	215,000	299,100	369,660	414,138
September .....	221,691	259,575	346,985	459,724
October .....	284,736	300,911	455,524	600,143
November .....	295,364	403,413	561,112	636,054
December .....	299,107	415,173	594,227	632,590
TOTAL .....	2,902,668	3,741,210	5,337,133	+ 6,312,387

+ Includes 67,738,000 kilowatt hours not distributed.

TABLE 14 - FUEL

Fuel used is almost entirely local coal, oil and gas and Saskatchewan and Nova Scotia are the only provinces using any substantial quantities of fuel to develop electric energy. Nova Scotia has several large hydro-electric developments, but Saskatchewan has only one which is on the Manitoba boundary and is included with Manitoba stations in these statistics. "Other fuel" is composed almost entirely of steam purchased by a Nova Scotia station.

DOMESTIC SERVICE

On the following page is a table bringing together and analysing the domestic service data for each province. The concentration of population in the cities, towns and villages having electric service would affect the number of customers, the number per 100 population, and ratios of consumption to total provincial consumptions and to the domestic consumption in Canada. The price would affect consumption, average bill, average cost per kilowatt hour, and, to a lesser degree, the number of customers. The method of charging for service would also have a marked effect on the average consumption and average cost per kilowatt hour. Flat rate charges and sliding scales which induce increased consumption, particularly the first, tend to greatly increase the kilowatt hour consumption and reduce the average cost per kilowatt hour although they may increase the



connected load by only a fraction of the rate of consumption increase. The habits and customs of the people also would have an effect on the consumption. British Columbia ranked first in density of customers, Ontario was second and Quebec third. The annual average bills for domestic service were remarkably close together in all the provinces, especially in view of the large differences in consumptions and cost per kilowatt hour. This indicates that with adequate supply low rates generally induce increased consumption. Manitoba showed by far the lowest average cost per kilowatt hour and the largest consumption per customer and per capita. These were considerably affected by the flat rate for water heaters in Winnipeg. Flat rate water heaters in Ontario also affect Ontario averages, but not to the same extent because the consumption of these heaters was a smaller percentage of the total consumption than in Manitoba.

DOMESTIC SERVICE

1 9 3 5

Province	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	Per cent of Total Provincial Consumption	Per cent of Dominion Dom. Serv. Consumption
			\$	¢	Kw. Hr.	Kw. Hr.		
P.E. Island ....	4,199	4.72	32.09	7.82	410	19	33.6	.1
Nova Scotia.....	52,300	9.92	25.44	5.13	496	49	6.7	1.5
New Brunswick...	36,602	8.53	27.18	4.83	563	48	5.4	1.2
Quebec .....	378,388	12.36	19.29	3.22	598	74	2.2	12.8
Ontario .....	618,111	17.19	27.78	1.68	1,657	279	13.5	57.8
Manitoba .....	74,538	10.09	39.11	1.01	3,881	407	21.6	16.3
Saskatchewan ...	45,451	4.65	39.51	5.07	779	38	25.6	2.0
Alberta .....	58,127	7.45	29.49	5.42	544	41	15.1	1.8
British Columbia and Yukon .....	134,267	18.17	25.47	2.97	857	156	7.5	6.5
CANADA .....	1,401,983	12.82	26.23	2.08	1,262	162	8.2	100.0

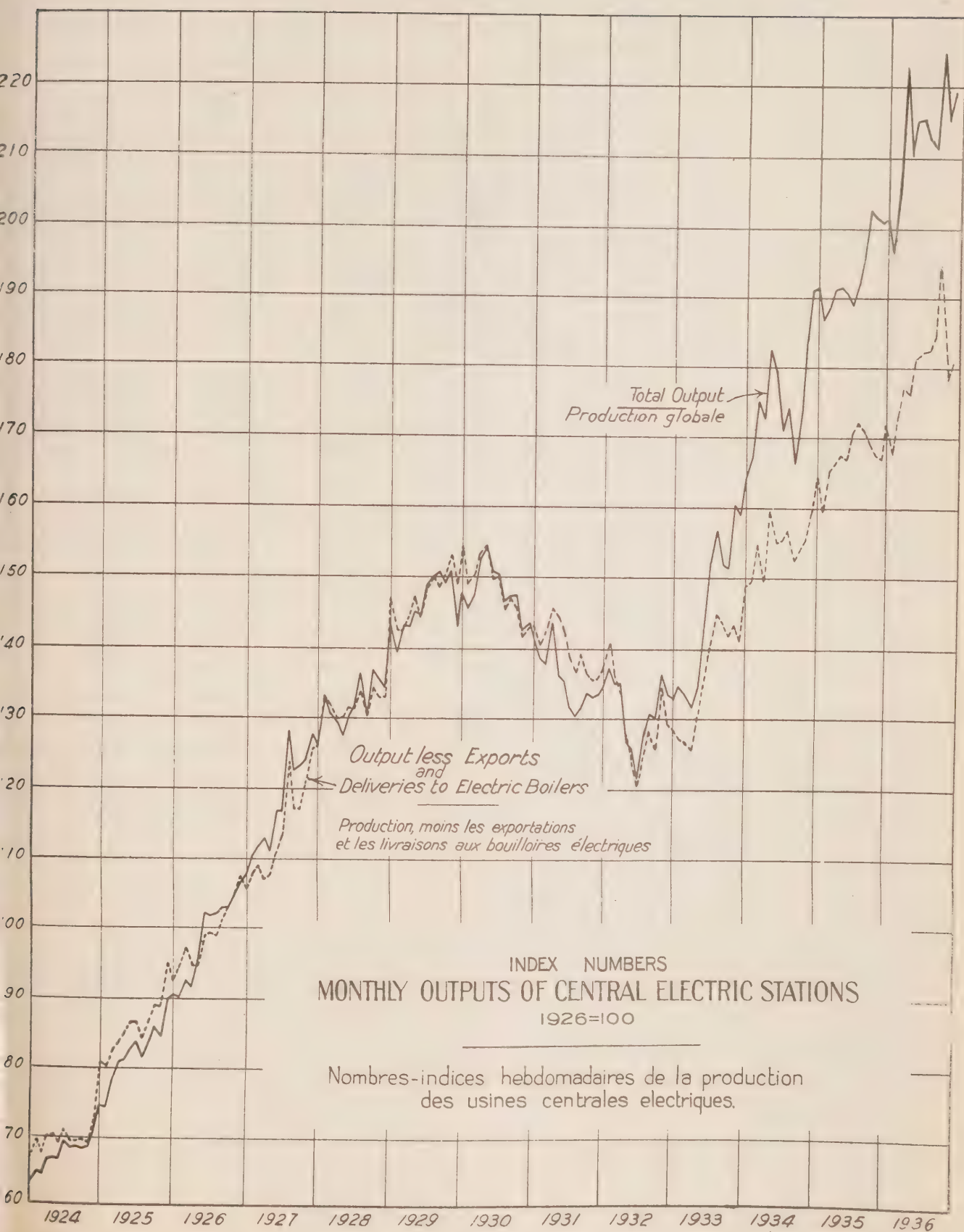


Table 1 - COMPARATIVE SUMMARY, 1935-1926

Principal Data by Class of Station	1935	1934	1933	1932	1931
<b>Electric Power Plants</b>					
Total .....	566	573	575	572	555
Hydroelectric .....	316	314	314	312	307
Thermal .....	250	259	261	260	255
Wind .....	397	402	403	402	394
Geothermal .....	169	171	172	170	167
Total .....	\$ 1,459,821,168	\$ 1,430,852,166	\$ 1,386,532,055	\$ 1,335,886,987	\$ 1,229,983,951
Commercial .....	\$ 962,263,142	\$ 956,332,436	\$ 913,946,953	\$ 880,013,400	\$ 785,913,481
Municipal .....	\$ 497,558,026	\$ 474,469,730	\$ 472,585,102	\$ 455,873,587	\$ 444,073,477
Generating .....	\$ 1,307,710,173	\$ 1,281,043,308	\$ 1,240,169,735	\$ 1,191,499,567	\$ 1,092,292,081
Non-generating .....	\$ 152,110,995	\$ 149,807,863	\$ 146,362,270	\$ 144,387,420	\$ 137,695,866
Total .....	\$ 127,177,954	\$ 124,453,613	\$ 117,532,081	\$ 121,212,574	\$ 122,310,731
Commercial .....	\$ 79,341,554	\$ 77,309,301	\$ 73,382,078	\$ 73,121,083	\$ 72,103,931
Municipal .....	\$ 47,836,400	\$ 47,154,612	\$ 44,450,003	\$ 48,088,990	\$ 50,206,800
Generating .....	\$ 105,638,584	\$ 104,089,041	\$ 98,735,084	\$ 100,821,712	\$ 101,475,521
Non-generating .....	\$ 21,539,370	\$ 20,374,572	\$ 18,796,997	\$ 20,390,967	\$ 20,835,200
<b>Expenses (2)</b>					
Total .....	\$ 79,625,134	\$ 75,948,821	\$ 73,051,651	\$ 74,306,251	\$ 75,235,761
Commercial .....	\$ 33,836,054	\$ 31,778,237	\$ 29,159,633	\$ 30,349,320	\$ 32,418,111
Municipal .....	\$ 45,789,080	\$ 44,170,584	\$ 43,882,013	\$ 43,956,931	\$ 42,817,661
Generating .....	\$ 43,904,771	\$ 40,911,113	\$ 38,608,455	\$ 40,262,157	\$ 41,336,811
Non-generating .....	\$ 35,720,363	\$ 35,037,703	\$ 34,443,196	\$ 34,044,094	\$ 33,898,811
<b>Pole Line Mileage</b>					
Total .....	57,602	56,214	56,570	53,845	52,311
Commercial .....	26,520	26,476	25,129	25,010	24,211
Municipal .....	31,082	29,738	31,441	28,835	28,111
Generating .....	43,372	42,537	43,625	40,675	39,711
Non-generating .....	14,230	13,677	12,945	13,170	12,611
<b>Customers</b>					
Total .....	1,694,703	1,660,079	1,666,882	1,657,454	1,632,711
Domestic service (3) .....	1,401,983	1,379,153	1,371,806	1,357,462	1,336,711
Commercial light .....	240,468	229,187	244,283	248,587	244,611
Power (small) .....	40,292	41,429	40,641	28,942	25,811
Power (large) .....	9,989	8,325	8,160	20,593	23,511
Street lighting .....	1,971	1,985	1,992	1,970	1,911
Commercial stations .....	779,400	760,462	776,581	776,400	758,411
Municipal stations .....	915,303	895,617	890,301	881,054	874,411
Generating stations .....	837,278	819,419	843,324	846,420	835,411
Non-generating stations .....	857,425	840,660	823,558	811,034	797,411
<b>Electric Energy Generated</b>					
Total kilowatt hours (thousands) .....	23,283,033	21,197,124	17,338,990	16,052,057	16,330,411
Commercial .....	17,767,949	16,060,883	13,665,974	12,338,216	12,191,411
Municipal .....	5,515,084	5,136,241	3,673,016	3,713,841	4,139,411
<b>Exports to the United States (6) .....</b> (thousands) Kw.H.	1,359,021	1,243,079	983,561	659,691	1,227,411
<b>Imports from the United States (6) .....</b> " Kw.H.	656	642	608	552	511
<b>Equipment in Generating Stations (Main Plant Only)</b>					
Total Primary Power .....	7,104,142	6,854,161	6,616,006	6,343,654	5,706,411
Total in commercial stations .....	5,138,200	4,961,639	4,707,096	4,577,493	4,046,411
Total in municipal stations .....	1,965,942	1,892,522	1,908,910	1,766,161	1,659,411
Total Secondary Power .....	5,893,984	5,699,955	5,491,685	5,278,204	4,727,411
Total in commercial stations .....	4,317,823	4,179,536	3,956,475	3,850,009	3,388,411
Total in municipal stations .....	1,576,161	1,520,419	1,535,210	1,428,195	1,338,411
<b>Auxiliary Plant Equipment</b>					
Primary Power .....	206,831	207,431	193,569	184,879	184,411
Secondary Power .....	176,830	177,241	164,732	157,077	151,411

(1) Duplications excluded.

(2) Includes wages, cost of power, fuel and taxes, but not other expenses.

(3) Farm service is included with domestic service.

(4) Includes small power customers in 1929

(5) Revised.

(6) By central electric stations only. See page 2.



Tableau 1 - SOMMAIRE COMPARATIF, 1935-1926

1930	1929	1928	1927	1926	Données principales par classes d'usines
537	585	601	629	595	<u>Usines électriques</u>
311	300	300	302	294	<u>Total</u>
276	285	301	327	301	Hydrauliques
421	420	428	432	393	A combustible
166	165	173	197	202	Commerciales
					Municipales
200,016	1,055,731,532	956,919,603	866,825,285	756,220,066	<u>Capital</u>
890,071	685,771,270	614,910,399	523,070,964	430,817,426	<u>Total</u>
309,945	369,960,262	342,009,204	338,754,321	325,402,640	Commerciales
701,285	926,103,973	835,422,031	750,703,270	647,850,154	Municipales
498,731	129,627,559	121,497,572	116,122,015	108,369,912	Génératrices
					Non-génératrices
038,145	122,883,446	112,326,819	104,033,297	88,933,733	<u>Recettes (1)</u>
261,572	70,874,794	64,575,700	59,320,175	47,911,555	<u>Total</u>
776,573	52,008,652	47,751,119	44,713,122	41,022,178	Commerciales
632,540	102,704,833	92,722,293	86,369,058	72,123,290	Municipales
405,605	20,178,613	19,604,526	17,664,239	16,810,443	Génératrices
					Non-génératrices
209,469	67,432,418	62,330,860	60,169,781	52,766,799	<u>Dépenses (2)</u>
712,063	31,888,591	30,961,337	28,704,496	24,622,619	<u>Total</u>
497,406	35,543,827	31,369,523	31,465,285	28,144,180	Commerciales
646,659	36,713,723	33,837,618	31,920,941	27,655,269	Municipales
562,810	30,718,695	28,493,242	28,248,840	25,111,530	Génératrices
					Non-génératrices
48,814	42,913	37,333	33,573	29,695	<u>Lignes sur poteaux</u>
23,614	22,356	18,875	16,747	14,257	<u>Total</u>
25,200	20,557	18,458	16,826	15,438	Commerciales
35,707	30,718	25,524	23,246	20,005	Municipales
13,107	12,195	11,809	10,327	9,690	Génératrices
					Non-génératrices
607,881	1,555,883	1,464,005	1,381,968	1,337,562	<u>Abonnés</u>
317,324	1,292,481	1,207,457	1,142,512	1,110,637	<u>Total</u>
238,847	(4) 233,854	215,728	199,431	188,553	Eclairage domestique (3)
24,836	( 28,001	( 40,820	( 40,025	( 38,372	Eclairage commercial
25,150	( 1,547	(	(	(	Force motrice (petite)
1,724	...	...	...	...	Force motrice (grosse)
					Eclairage de rues
745,608	733,698	677,223	622,823	584,760	Usines commerciales
862,158	822,185	786,782	759,145	752,802	Usines municipales
814,268	796,298	728,872	699,874	680,717	Usines génératrices
793,498	759,585	735,133	682,094	656,845	Usines non-génératrices
093,802	17,962,515	16,337,804	14,549,099	12,093,445	<u>Energie électrique générée</u>
937,014	12,774,107	11,460,974	9,944,422	7,797,480	<u>Total Kw.heures générés (milliers)</u>
156,788	5,188,408	4,876,830	4,604,677	4,295,965	Commerciale
					Municipale
612,281	1,444,524	1,587,761	1,632,614	1,506,002	Exportations d'électricité aux
					Etats-Unis (6) .... (milliers) Kw.H.
5,757	6,133	5,223	5,020	5,354	Importations d'électricité des
					Etats-Unis (6) .... (milliers) Kw.H.
401,108	4,925,555	4,627,667	4,173,349	3,769,323	<u>Machinerie dans les usines génératrices-</u>
794,819	3,523,625	3,268,350	2,797,055	2,423,244	(Usines principales seulement)
606,289	1,401,930	1,359,317	1,376,294	1,346,079	Total force motrice primaire ..... H.P.
474,865	4,048,019	3,764,331	3,385,227	2,995,387	Total dans les usines commerciales ..... H.P.
181,428	2,940,210	2,690,097	2,297,005	1,938,048	Total dans les usines municipales ..... H.P.
293,437	1,107,809	1,074,234	1,088,222	1,057,339	Total force motrice secondaire ..... Kw.A.
					Total dans les usines commerciales ..... Kw.A.
					Total dans les usines municipales ..... Kw.A.
171,453	171,888	159,233	145,047	176,865	<u>Outillage d'usines auxiliaires</u>
145,678	146,251	135,440	121,863	145,828	Force motrice primaire ..... H.P.
					Force motrice secondaire ..... Kw.A.

Duplications exclues.

Incluent sages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

L'éclairage des fermes est inclus dans l'éclairage domestique.

Comprend les petits consommateurs d'énergie en 1929.

Revisé.

Par usines centrales électriques seulement. Voir page 2.

Table 2 - ELECTRIC POWER PLANTS, 1935

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>Total number of generating stations</u> .....	566	11	46	15	95
Per cent of total for Canada .....	100.00	1.94	8.13	2.65	16.78
<u>Commercial</u> .....	397	9	24	11	80
Hydraulic .....	213	8	14	5	79
Fuel .....	184	1	10	6	1
<u>Municipal</u> .....	169	2	22	4	15
Hydraulic .....	103	..	19	3	13
Fuel .....	66	2	3	1	2
With water wheels and turbines .....	316	8	33	8	92
With steam engines only .....	36	..	1	2	..
With steam turbines only .....	16	1	6	1	..
With gas or oil engines only .....	187	2	6	3	3
With both steam engines and turbines .....	6	..	..	1	..
With both steam and gas or oil engines .....	5	..	..	..	..
With alternating current dynamos only .....	434	10	43	9	91
With direct current dynamos only .....	128	1	3	5	3
With both alternating and direct current dynamos .....	4	...	..	1	1
<u>Commercial Organizations</u> .....	x 370	8	25	25	68
Number generating power .....	278	7	14	10	45
Number buying power for redistribution .....	91	1	11	14	23
<u>Municipalities</u> .....	x 463	2	28	13	28
Number generating power .....	78	2	9	4	10
Number buying power for redistribution .....	384	..	19	9	17
<u>Auxiliary Plants</u> .....	67	2	9	3	7
To hydraulic stations .....	40	2	3	..	6
To non-generating stations .....	27	..	6	3	1

x - Organizations operating in two or more provinces are shown under provinces but are included in total as only one organization.

Tableau 2 - USINES GENERATRICES, 1935

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
133	28	117	60	61	<u>Nombre d'usines génératrices</u>
23.50	4.95	20.67	10.60	10.78	Pourcentage du total pour le Canada
66	14	87	52	54	<u>Commerciales</u>
61	4	..	5	37	Hydrauliques
5	10	87	47	17	A combustible
67	14	30	8	7	<u>Municipales</u>
59	3	..	1	5	Hydrauliques
8	11	30	7	2	A combustible
120	7	..	6	42	Avec roues et turbines hydrauliques
10	4	1	12	6	Avec machines à vapeur seulement
..	..	5	2	1	Avec turbines à vapeur seulement
3	15	109	34	12	Avec moteurs à gaz ou à pétrole seulement
..	1	2	2	..	Avec machines et turbines à vapeur à la fois
..	1	..	4	..	Avec machines à vapeur à gaz et à pétrole
129	22	45	32	53	Avec dynamos à courant alternatif seulement
4	5	72	27	8	Avec dynamos à courant direct seulement
..	1	..	1	..	Avec dynamos à courant alternatif et direct
55	19	69	54	50	<u>Usines commerciales</u>
44	12	67	46	33	Nombre d'usines génératrices
10	7	2	7	16	Nombre d'usines achetant de l'électricité pour la revendre
325	17	21	16	17	<u>Municipalités</u>
16	10	15	6	6	Nombre d'usines génératrices
308	6	6	9	10	Nombre d'usines achetant de l'électricité pour la revendre
14	6	..	9	17	<u>Usines auxiliaires</u>
9	2	..	7	11	Aux usines hydrauliques
5	4	..	2	6	Aux usines non-génératrices

x - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.



Table 3 - CAPITAL, 1935

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>Total Capital</u> .....	1,459,821,168	1,160,625	30,926,072	32,309,810	643,826,223
Per cent of total for Canada .....	100.00	0.08	2.12	2.21	44.10
Generation .....	898,826,180	593,245	20,290,973	22,954,261	462,494,577
Transmission and distribution .....	471,550,780	465,424	8,890,207	8,057,777	143,608,197
General .....	89,444,208	111,946	1,744,892	1,297,772	37,723,449
<u>Total Capital in Municipal Stations</u> .....	962,263,142	954,304	13,871,571	23,116,808	635,622,402
Generation .....	668,583,154	494,670	7,044,497	18,854,475	457,971,518
Transmission and distribution .....	231,939,440	397,013	5,742,128	3,365,531	140,292,884
General .....	61,740,548	62,621	1,084,946	896,802	37,358,000
Non-generating stations .....	36,978,593	5,000	5,642,043	2,056,839	563,334
Generating stations .....	925,284,549	949,304	8,229,528	21,059,969	635,059,068
Hydraulic stations .....	902,079,841	121,420	3,324,839	17,688,271	635,020,471
Fuel stations .....	23,204,708	827,884	4,904,689	3,371,698	38,597
<u>Total Capital in Municipal Stations</u> .....	497,558,026	206,321	17,054,501	9,193,002	8,203,821
Generation .....	230,243,026	98,575	13,246,476	4,099,786	4,523,059
Transmission and distribution .....	239,611,340	58,421	3,148,079	4,692,246	3,315,313
General .....	27,703,660	49,325	659,946	400,970	365,449
Non-generating stations .....	115,132,402	...	1,689,512	1,387,140	2,412,005
Generating stations .....	382,425,624	206,321	15,364,989	7,805,862	5,791,816
Hydraulic stations .....	363,946,358	...	15,246,639	4,913,861	5,747,816
Fuel stations .....	18,479,266	206,321	118,350	2,892,001	44,004
<u>Total Capital in Non-generating Stations</u> .....	152,110,995	5,000	7,331,555	3,443,979	2,975,331
Generation .....	4,249,710	...	2,057,371	546,199	695,07
Transmission and distribution .....	128,336,978	5,000	4,381,053	2,268,010	2,131,22
General .....	19,524,307	...	893,131	629,770	149,04
<u>Total Capital in Generating Stations</u> .....	1,307,710,173	1,155,625	23,594,517	28,865,831	640,850,88
Generation .....	894,576,470	593,245	18,233,602	22,408,062	461,799,50
Transmission and distribution .....	343,213,802	450,434	4,509,154	5,789,767	141,476,0
General .....	69,919,901	111,946	851,761	668,002	37,574,40
Hydraulic stations .....	1,266,026,199	121,420	18,571,478	22,602,132	640,768,21
Fuel stations .....	41,683,974	1,034,205	5,023,039	6,263,699	82,51
<u>TOTAL CAPITAL</u> .....					
Average per H.P. of primary power .....	205	210	218	247	1
Average per H.P. including auxiliary equipment .....	200	204	197	237	1
Average per Kv.A. of dynamo capacity .....	248	235	261	292	2
Average per Kv.A. including auxiliary equipment .....	240	233	236	282	2
<u>Generation</u> .....					
Average cost per H.P. (including auxiliary equipment)-					
In all generating stations .....	124	104	142	175	
In hydraulic stations .....	125	114	173	177	
In fuel stations .....	79	103	60	145	

x - Capital invested in one hydraulic station in Saskatchewan included in Manitoba.

Tableau 3 - CAPITAL, 1935

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
711,819	x 80,933,184	x 25,576,944	27,103,959	106,272,532	<u>Total Capital</u>
35.05	5.55	1.75	1.86	7.28	Pourcentage du total pour le Canada
656,996	46,430,652	12,150,381	12,494,604	57,760,491	Génération
141,700	29,513,268	11,911,218	13,250,587	37,722,392	Transmission et distribution
913,123	4,989,264	1,515,345	1,358,768	10,789,649	Généralités
617,021	47,755,731	12,353,017	21,827,391	104,144,897	<u>Total Capital dans les usines commerciales</u>
364,128	33,442,203	5,806,409	10,623,894	56,981,360	Génération
561,631	11,430,547	5,557,458	10,103,418	36,488,830	Transmission et distribution
691,262	2,882,981	989,150	1,100,079	10,674,707	Généralités
840,466	956,232	1,755,696	82,435	23,076,548	Usines non-génératrices
776,555	46,799,499	10,597,321	21,744,956	81,068,349	Usines génératrices
737,973	46,397,454	...	19,046,628	80,742,785	Usines hydrauliques
38,582	402,045	10,597,321	2,698,328	325,564	Usines à combustible
094,798	33,177,453	13,223,927	5,276,568	2,127,635	<u>Total Capital dans les usines municipales</u>
292,868	12,988,449	6,343,972	1,870,710	779,131	Génération
580,069	18,082,721	6,353,760	3,147,169	1,233,562	Transmission et distribution
221,861	2,106,283	526,195	258,689	114,942	Généralités
591,833	5,178,553	1,667,411	2,191,561	1,014,387	Usines non-génératrices
502,965	27,998,900	11,556,516	3,085,007	1,113,248	Usines génératrices
338,479	27,390,486	...	237,480	1,071,597	Usines hydrauliques
164,486	608,414	11,556,516	2,847,527	41,651	Usines à combustibles
432,299	6,134,785	3,423,107	2,273,996	24,090,935	<u>Total Capital dans les usines non-génératrices</u>
287,638	345,690	...	61,570	256,168	Génération
672,994	4,980,658	3,160,571	2,177,018	19,560,450	Transmission et distribution
471,667	808,437	262,536	35,408	4,274,317	Généralités
4,279,520	74,798,399	22,153,837	24,829,963	82,181,597	<u>Total Capital dans les usines génératrices</u>
1,369,358	46,084,962	12,150,381	12,433,034	57,504,323	Génération
1,468,706	24,532,610	8,750,647	11,073,569	18,161,942	Transmission et distribution
7,441,456	4,180,827	1,252,809	1,323,360	6,515,332	Généralités
3,076,452	73,787,940	...	19,284,108	81,814,382	Usines hydrauliques
203,068	1,010,459	22,153,837	5,545,855	367,215	Usines à combustible
					<u>TOTAL-CAPITAL</u>
246	184	185	210	189	Moyenne par H.P. de la machinerie d'énergie primaire
241	171	185	179	173	Moyenne par H.P. y compris machinerie auxiliaire
306	228	219	258	243	Moyenne par Kv.A. de la capacité des dynamos
300	211	219	218	222	Moyenne par Kv.A. y compris machinerie auxiliaire
					<u>Génération</u>
					<u>Moyenne par H.P. compris machinerie auxiliaire-</u>
125	99	88	83	94	Dans les usines génératrices
124	98	..	109	94	Dans les usines hydrauliques
110	164	88	43	90	Dans les usines à combustible

Capital engagé dans une usine hydraulique de la Saskatchewan inclus sous Manitoba.

Table 4 - REVENUE, 1935

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
Revenue from sale of electric energy .....	127,177,954	278,727	5,096,453	+ 3,233,679	47,808,5
For domestic service .....	36,773,643	134,740	1,330,632	994,895	7,297,4
For commercial light .....	20,974,068	74,359	741,438	460,665	5,824,9
For power (small) .....	8,495,541	27,997	328,582	192,556	2,368,2
For power (large) .....	56,170,793	21,712	2,505,323	1,483,448	31,133,8
For street lighting .....	4,763,909	19,919	190,478	102,115	1,184,0
Revenue of Commercial Stations .....	79,341,554	224,266	3,438,071	2,109,641	46,598,6
Non-generating .....	4,939,905	587	1,182,287	369,499	100,8
Generating .....	74,401,649	223,679	2,255,784	1,740,142	46,497,7
Hydraulic .....	69,654,998	21,532	443,704	1,279,825	46,487,1
Fuel .....	4,746,651	202,147	1,812,080	460,317	10,5
Revenue of Municipal Stations .....	47,836,400	54,461	1,658,382	1,124,038	1,209,9
Non-generating .....	16,599,465	...	385,818	332,312	504,0
Generating .....	31,236,935	54,461	1,272,564	791,726	705,8
Hydraulic .....	26,850,574	...	1,239,721	481,597	699,8
Fuel .....	4,386,361	54,461	32,843	310,129	5,9
Revenue of non-generating stations .....	21,539,370	587	1,568,105	701,811	604,9
Revenue of generating stations .....	105,638,584	278,140	3,528,348	2,531,868	47,203,6
Revenue of hydraulic stations .....	96,505,572	21,532	1,683,425	1,761,422	47,187,0
Revenue of fuel stations .....	9,133,012	256,608	1,844,923	770,446	16,5
Average revenue per H.P. of primary power .....	17.90	50.43	35.88	24.69	13.
Average revenue per H.P. in main and auxiliary plants..	17.40	48.97	32.54	23.76	13.
Average revenue per Kw.A. of dynamo capacity .....	21.58	56.55	42.97	29.23	16.
Average revenue per Kw.A. in main and auxiliary plants.	20.95	56.00	38.96	28.26	15.
Average revenue per kilowatt hour consumed .....(Cents)	0.55	5.44	1.31	0.83	0
Average revenue per domestic service customer .....	26.23	32.09	25.44	27.18	19
Average revenue per commercial light customer .....	87.22	72.26	79.89	80.51	90
Average revenue per small power customer .....	210.85	254.52	166.71	196.89	197
Average revenue per large power customer .....	5,623.26	700.39	1,537.08	10,023.30	26,474
Average revenue per kilowatt hour - domestic and farm service .....(Cents)	2.08	7.82	5.13	4.83	3
Average revenue per kilowatt hour- commercial light .....(Cents)	2.41	7.02	5.37	3.57	3

+ Affected by power purchased from another province.



Tableau 4 - RECETTES, 1935

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
5,535,095	6,729,818	4,377,205	4,776,982	11,278,402	<u>Recettes provenant de la vente d'électricité</u>
7,171,434	2,914,963	1,795,683	1,714,128	3,419,710	Pour éclairage domestique
7,779,463	1,352,710	1,148,918	1,314,652	2,276,885	Pour éclairage commercial
8,515,365	320,574	607,697	619,697	514,864	Pour force motrice (petite)
8,019,788	1,877,359	555,745	855,589	4,654,916	Pour force motrice (grosse)
2,049,045	264,212	269,162	272,916	412,027	Pour éclairage des rues
0,303,423	3,382,595	1,588,095	2,405,487	10,672,638	<u>Recettes des usines commerciales</u>
661,456	140,221	130,429	52,202	2,670,023	Non-génératrices
2,641,967	3,242,374	1,457,666	2,353,285	8,002,615	Génératrices
2,631,519	3,177,870	...	1,729,003	7,897,994	Hydrauliques
10,448	64,504	1,457,666	624,282	104,621	À combustible
8,231,672	3,347,223	2,789,110	2,371,495	605,764	<u>Recettes des usines municipales</u>
8,011,436	633,196	600,754	841,693	339,513	Non-génératrices
0,220,236	2,714,027	2,188,356	1,529,802	266,251	Génératrices
0,160,884	2,505,975	...	34,268	234,609	Hydrauliques
59,352	208,052	2,188,356	1,495,534	31,642	À combustible
1,672,892	773,417	731,183	893,895	3,009,536	Recettes des usines non-génératrices
8,862,203	5,956,401	3,646,022	3,883,087	8,268,866	Recettes des usines génératrices
0,792,403	5,683,845	...	1,763,271	8,132,603	Recettes des usines hydrauliques
69,800	272,556	3,646,022	2,119,816	136,263	Recettes des usines à combustible
25.75	15.28	31.67	36.94	20.03	Moyenne de recettes par H.P. de machinerie primaire
25.24	14.22	31.67	31.56	18.37	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
32.00	18.97	37.43	45.45	25.81	Moyenne de recettes par Kw.A. de capacité de dynamos
31.34	17.52	37.43	38.44	23.52	Moyenne de recettes par Kw.A. de capacité des dynamos, usines principales et auxiliaires
0.80	0.50	3.16	2.30	0.74	Moyenne de recettes par Kw. heure (cents)
27.78	39.11	39.51	29.49	25.47	Moyenne de recettes par abonnés d'éclairage domestique
87.93	87.78	81.74	73.52	95.03	Moyenne de recettes par abonnés d'éclairage commercial
275.95	126.26	215.19	149.50	172.14	Moyenne de recettes par abonnés pour petite force motrice
6,176.49	729.92	5,502.43	2,751.09	2,644.84	Moyenne de recettes par abonnés pour grosse force motrice
1.68	1.01	5.07	5.42	2.97	Moyenne de recettes par Kw. heure - service domestique et de ferme (cents)
1.99	0.97	6.15	4.97	3.09	Moyenne de recettes par Kw. heure - service commercial (cents)

Affecté par énergie achetée d'une autre province.

Table 5 - EXPENSES, 1935

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>Total Expenses</u> .....	79,625,134	117,865	3,035,111	1,538,809	16,610,172
Per cent of total for Canada .....	100.00	0.15	3.81	1.93	20.86
Salaries and wages .....	22,519,993	59,350	924,419	480,397	5,391,621
Fuel .....	2,054,876	40,373	764,163	159,330	3,476
Taxes .....	7,524,026	17,555	239,944	101,877	4,099,314
Cost of power .....	47,526,239	587	1,056,585	797,205	7,115,761
<u>Total for Commercial Stations</u> .....	33,836,054	103,001	2,347,790	841,921	16,093,249
Salaries and wages .....	10,721,915	53,245	622,438	281,628	5,151,004
Fuel .....	1,300,941	31,614	756,713	96,154	2,406
Taxes .....	7,013,470	17,555	286,332	101,344	4,088,201
Cost of power .....	14,799,728	587	682,307	362,795	6,851,638
Non-generating stations .....	7,075,533	587	1,202,611	532,807	47,907
Generating stations .....	26,760,521	102,414	1,145,179	309,114	16,045,342
Hydraulic stations .....	24,390,562	10,041	131,433	97,817	16,039,692
Fuel stations .....	2,369,959	92,373	1,013,746	211,297	5,650
<u>Total for Municipal Stations</u> .....	45,789,080	14,864	687,321	696,888	516,923
Salaries and wages .....	11,798,078	6,105	301,981	198,769	240,617
Fuel .....	753,935	8,759	7,450	63,176	1,070
Taxes .....	510,556	...	3,612	533	11,117
Cost of power .....	32,726,511	...	374,278	434,410	264,123
Non-generating stations .....	23,644,830	...	473,397	358,498	370,451
Generating stations .....	17,144,250	14,864	213,924	338,390	146,461
Hydraulic stations .....	15,419,283	...	198,755	225,199	142,89
Fuel stations .....	1,724,967	14,864	15,169	113,191	3,57
<u>Total Expenses for Non-generating Stations</u> .....	35,720,363	587	1,676,008	891,305	418,36
Salaries and wages .....	7,168,676	...	435,764	207,791	142,31
Fuel .....	8,694	...	1,714	94	..
Taxes .....	783,366	...	193,328	47,891	1,36
Cost of power .....	27,759,627	587	1,045,202	635,529	274,68
<u>Total Expenses for Generating Stations</u> .....	43,904,771	117,278	1,359,103	647,504	16,191,8
Salaries and wages .....	15,351,317	59,350	488,655	272,606	5,249,3
Fuel .....	2,046,182	40,373	762,449	159,236	3,4
Taxes .....	6,740,660	17,555	96,616	53,986	4,097,9
Cost of power .....	19,766,612	...	11,383	161,676	6,841,1
Hydraulic stations .....	39,809,845	10,041	330,188	323,016	16,182,5
Fuel stations .....	4,094,926	107,237	1,028,915	324,488	9,4

Tableau 5 - DEPENSES, 1935

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
994,369	3,378,562	2,379,664	2,028,643	6,541,939	<u>Total des dépenses</u>
55.25	4.24	2.99	2.55	8.22	Pourcentage du total pour le Canada
340,908	1,587,614	785,384	841,770	2,108,530	Salaires et gages
21,841	72,183	760,954	184,805	47,751	Combustible
293,914	271,628	135,609	192,930	1,121,255	Taxes
337,706	1,447,137	697,717	809,138	3,264,403	Achat d'énergie électrique
096,419	1,672,878	776,243	697,018	6,207,535	<u>Total pour les usines commerciales</u>
354,431	567,656	301,214	395,107	1,995,192	Salaires et gages
6,314	14,543	279,916	73,502	39,779	Combustible
017,939	178,218	88,927	113,699	1,121,255	Taxes
717,735	912,461	106,186	114,710	3,051,309	Achat d'énergie électrique
045,045	243,901	97,106	40,827	3,864,742	Usines non-génératrices
051,374	1,428,977	679,137	656,191	2,342,793	Usines génératrices
046,599	1,394,434	...	380,742	2,289,804	Usines hydrauliques
4,775	34,543	679,137	275,449	52,989	Usines à combustibles
897,950	1,705,684	1,603,421	1,331,625	334,404	<u>Total pour les usines municipales</u>
986,477	1,019,958	484,170	446,663	113,338	Salaires et gages
15,527	57,640	481,038	111,303	7,972	Combustible
275,975	93,410	46,682	79,231	...	Taxes
9619,971	534,676	591,531	694,428	213,094	Achat d'énergie électrique
5,380,552	315,177	671,584	806,071	269,096	Usines non-génératrices
3,517,398	1,390,507	931,837	525,554	65,308	Usines génératrices
3,497,953	1,292,845	...	10,795	50,839	Usines hydrauliques
19,445	97,662	931,837	514,759	14,469	Usines à combustibles
6,425,597	559,078	768,690	846,898	4,133,838	<u>Total des dépenses des usines non-génératrices</u>
4,837,540	211,562	94,317	177,307	1,062,085	Salaires et gages
...	5,176	...	...	1,710	Combustible
114,057	13,337	49,721	57,739	305,925	Taxes
1,474,000	329,003	624,652	611,852	2,764,118	Achat d'énergie électrique
7,568,772	2,819,484	1,610,974	1,181,745	2,408,101	<u>Total des dépenses des usines génératrices</u>
5,503,368	1,376,052	691,067	664,463	1,046,445	Salaires et gages
21,841	67,007	760,954	184,805	46,041	Combustible
1,179,857	258,291	85,888	135,191	815,330	Taxes
0,863,706	1,118,134	73,065	197,286	500,285	Achat d'énergie électrique
7,544,552	2,687,279	...	391,537	2,340,643	Usines hydrauliques
24,220	132,205	1,610,974	790,208	67,458	Usines à combustibles



Table 6 - EMPLOYEES, 1935

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>Total Number of Persons Employed</u> .....	15,342	59	822	470	3,716
Per cent of total for Canada .....	100.00	0.38	5.36	3.06	24.22
Officers, clerks, other salaried employees, etc. ..	6,240	28	266	215	1,078
Employees on wages .....	9,102	31	556	255	2,638
<u>Total Employees in Commercial Stations</u> .....	7,532	51	522	264	3,525
Officers, clerks, other salaried employees, etc. ..	2,605	25	176	107	994
Employees on wages .....	4,927	26	346	157	2,531
Non-generating .....	1,136	..	269	122	19
Generating .....	6,396	51	253	142	3,506
Hydraulic .....	5,725	9	109	53	3,503
Fuel .....	671	42	144	89	3
<u>Total Employees in Municipal Stations</u> .....	7,810	8	300	206	191
Officers, clerks, other salaried employees, etc. ..	3,635	3	90	108	84
Employees on wages .....	4,175	5	210	98	107
Non-generating .....	3,886	..	93	69	83
Generating .....	3,924	8	207	137	108
Hydraulic .....	3,353	..	197	92	105
Fuel .....	571	8	10	45	3
<u>Total Employees in Non-generating Stations</u> .....	5,022	..	362	191	102
Officers, clerks, other salaried employees, etc. ..	2,632	..	166	96	51
Employees on wages .....	2,390	..	196	95	51
<u>Total Employees in Generating Stations</u> .....	10,320	59	460	279	3,614
Officers, clerks, other salaried employees, etc. ..	3,608	28	100	119	1,027
Employees on wages .....	6,712	31	360	160	2,587
Hydraulic .....	9,078	9	306	145	3,608
Fuel .....	1,242	50	154	134	6

Tableau 6 - EMPLOYÉS, 1935

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
6,547	1,207	554	567	1,400	<u>Total du personnel occupé</u>
42.67	7.87	3.61	3.70	9.13	Pourcentage du total pour le Canada
2,927	580	243	296	607	Administrateurs, directeurs, commis et tous employés des bureaux
3,620	627	311	271	793	Ouvriers et journaliers
958	414	239	256	1,303	<u>Personnel des usines commerciales</u>
299	177	121	158	548	Administrateurs, directeurs, commis et tous employés des bureaux
659	237	118	98	755	Ouvriers et journaliers
48	14	13	8	643	Non-génératrices
910	400	226	248	660	Génératrices
904	381	...	133	633	Hydrauliques
6	19	226	115	27	Combustible
5,589	793	315	311	97	<u>Personnel des usines municipales</u>
2,628	403	122	138	59	Administrateurs, directeurs, commis et tous employés des bureaux
2,961	390	193	173	38	Ouvriers et journaliers
2,217	197	53	124	50	Non-génératrices
1,372	596	262	187	47	Génératrices
1,364	546	...	8	41	Hydrauliques
8	50	262	179	6	Combustible
2,265	211	66	132	693	<u>Personnel des usines non-génératrices</u>
2,718	92	37	77	395	Administrateurs, directeurs, commis et tous employés des bureaux
2,547	119	29	55	298	Ouvriers et journaliers
2,282	996	488	435	707	<u>Personnel des usines génératrices</u>
2,209	488	206	219	212	Administrateurs, directeurs, commis et tous employés des bureaux
2,073	508	282	216	495	Ouvriers et journaliers
2,268	927	...	141	674	Hydrauliques
14	69	488	294	33	Combustible

Table 7 - NUMBER OF CUSTOMERS, 1935

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Number of Customers .....	1,694,703	5,379	63,793	47,483	456,854
Per 100 of population .....	100.00	0.72	3.75	2.37	26.36
Domestic service .....	1,401,983	4,199	52,300	36,602	378,383
Commercial light .....	240,468	1,029	9,281	5,722	64,657
Power (small) .....	40,292	110	1,971	978	11,995
Power (large) .....	9,989	31	163	148	1,176
Fuel .....	1,971	10	78	39	638
Commercial Stations .....	779,400	4,394	42,643	22,140	422,374
Domestic service .....	630,516	3,475	35,095	17,801	347,709
Commercial light .....	123,242	816	6,190	3,566	61,808
Power (small) .....	20,004	64	1,200	686	11,125
Power (large) .....	4,477	31	110	66	1,121
Street lighting .....	1,161	8	48	21	611
Non-generating .....	170,348	47	33,559	13,836	2,946
Generating .....	609,052	4,347	9,084	8,304	419,428
Hydraulic .....	560,387	742	5,720	271	419,302
Fuel .....	48,665	3,605	3,364	8,033	126
Municipal Stations .....	915,303	985	21,150	21,349	34,480
Domestic service .....	771,467	724	17,205	18,801	30,679
Commercial light .....	117,226	213	3,091	2,156	2,849
Power (small) .....	20,288	46	771	292	870
Power (large) .....	5,512	...	53	62	55
Street lighting .....	810	2	30	18	27
Non-generating .....	687,077	...	17,213	12,824	18,182
Generating .....	228,226	985	3,937	8,525	16,293
Hydraulic .....	165,216	...	3,133	6,148	15,940
Fuel .....	63,010	985	804	2,377	358
Non-generating Stations .....	857,425	47	50,772	26,660	21,128
Domestic service .....	717,277	36	41,759	22,240	18,703
Commercial light .....	117,291	2	7,181	3,791	1,816
Power (small) .....	17,429	...	1,562	513	551
Power (large) .....	4,834	...	78	91	20
Street lighting .....	594	1	39	25	38
Generating Stations .....	837,278	5,332	13,021	18,829	435,726
Hydraulic stations .....	725,603	742	8,853	6,419	435,248
Domestic service .....	602,670	613	7,172	5,288	359,318
Commercial light .....	98,955	127	1,286	414	62,728
Power (small) .....	18,239	...	315	85	11,444
Power (large) .....	4,726	...	50	24	1,156
Street lighting .....	1,013	2	30	8	59
Fuel stations .....	111,675	4,590	4,168	10,410	48
Domestic service .....	82,036	3,848	3,369	8,474	36
Commercial light .....	24,222	894	668	1,517	12
Power (small) .....	4,624	110	87	380	...
Power (large) .....	...	3	35	33	...
Street lighting .....	...	7	9	6	...
Average number of domestic service customers per 100 of population .....	100.00	4.72	9.38	8.53	12.1



Tableau 7 - NOMBRE D'USAGERS, 1935

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
723,597 42.70	95,168 5.61	62,716 3.70	80,653 4.76	163,054 9.62	<u>Nombre d'usagers</u> Pourcentage du total pour le Canada
618,111 88,471 12,739 3,727 549	74,538 15,411 2,539 2,572 108	45,451 14,056 2,824 101 224	58,127 17,882 4,145 311 188	134,267 23,959 2,991 1,760 77	Eclairage domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
63,564 52,661 9,280 1,286 270 67	28,865 20,886 6,577 327 1,053 22	23,002 15,918 6,007 892 35 150	26,676 16,831 7,560 2,040 73 172	145,742 120,140 21,438 2,384 1,718 62	<u>Nombre d'usagers des usines commerciales</u> Eclairage domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
4,042 59,522 59,214 308	6,279 22,586 21,405 1,181	2,695 20,307 ... 20,307	1,423 25,253 15,061 10,192	105,521 40,221 38,672 1,549	Non-génératrices Génératrices Hydrauliques Combustible
660,033 565,450 79,191 11,453 3,457 482	66,303 53,652 8,834 2,212 1,519 86	39,714 29,533 8,049 1,932 66 134	53,977 41,296 10,322 2,105 238 16	17,312 14,127 2,521 607 42 15	<u>Nombre d'usagers des usines municipales</u> Eclairage domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
573,467 86,566 85,721 845	13,128 53,175 49,449 3,726	14,449 25,265 ... 25,265	25,153 28,824 770 28,054	12,661 4,651 4,055 596	Non-génératrices Génératrices Hydrauliques Combustible
577,509 486,782 76,863 10,629 2,923 312	19,407 16,011 2,623 593 103 77	17,144 12,730 3,482 834 43 55	26,576 20,949 4,637 933 44 13	118,182 98,065 16,744 1,807 1,532 34	<u>Nombre d'usagers des usines non-génératrices</u> Eclairage domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
146,088 144,935 130,405 11,413 2,081 802 234	75,761 70,854 54,973 11,736 1,691 2,444 10	45,572 ... ... ... ... ... ...	54,077 15,831 9,700 4,530 1,477 27 97	44,872 42,727 34,601 6,724 1,146 223 33	<u>Nombre d'usagers des usines génératrices</u> Usines hydrauliques Eclairage domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
1,153 924 195 29 2 3	4,907 3,554 1,052 255 25 21	45,572 32,721 10,574 1,990 58 229	38,246 27,478 8,715 1,735 240 78	2,145 1,601 491 38 5 10	<u>Usines à combustible</u> Eclairage domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
17.18	10.09	4.65	7.45	18.17	Moyenne de consommateurs d'éclairage électrique par 100 habitants

Table 8 - POLE LINE MILEAGE, 1935

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>Pole Line Mileage</u> .....	57,602	208	2,608	1,941	11,889
Per cent of total for Canada .....	100.00	.36	4.53	3.37	20.84
Miles of steel towers .....	4,550	...	21	214	1,091
Miles of steel poles .....	275	...	...	...	216
Miles of wooden poles .....	50,300	206	2,578	1,726	9,987
Miles of concrete poles .....	596	...	...	...	...
Miles of underground and submarine cables .....	1,881	2	9	1	595
<u>Total Pole Line Mileage in Commercial Stations</u> .....	26,520	187	1,448	624	11,426
Non-generating .....	4,303	7	629	249	272
Generating .....	22,217	180	819	375	11,154
Hydraulic .....	19,825	57	618	154	11,148
Fuel .....	2,392	123	201	221	6
<u>Total Pole Line Mileage in Municipal Stations</u> .....	31,082	21	1,160	1,317	463
Non-generating .....	9,927	...	450	205	161
Generating .....	21,155	21	710	1,112	302
Hydraulic .....	18,424	...	689	701	298
Fuel .....	2,731	21	21	411	10
<u>Total Pole Line Mileage in Non-generating Stations</u> ....	14,230	7	1,079	454	433
<u>Total Pole Line Mileage in Generating Stations</u> .....	43,372	201	1,529	1,487	11,456
Hydraulic .....	38,249	57	1,307	855	11,440
Fuel .....	5,123	144	222	632	16

Table 9 - AUXILIARY PLANT EQUIPMENT, 1935

<u>Total Primary Power</u> .....	H.P.	206,831	165	14,601	5,125	38,544
Per cent of total for Canada .....		100.00	.08	7.06	2.48	18.64
Steam reciprocating engines .....	No.	44	1	9	5	3
Total capacity .....	H.P.	19,309	75	3,988	1,475	2,250
Steam turbines .....	No.	52	...	6	4	8
Total capacity .....	H.P.	178,453	...	10,028	3,600	36,224
Gas and oil engines .....	No.	51	2	5	1	1
Total capacity .....	H.P.	9,069	90	585	50	7
<u>Total Secondary Power</u> .....	Kv.A.	176,890	48	12,197	3,793	34,478
<u>Commercial Stations</u>						
<u>Total Primary Power</u> .....	H.P.	135,974	165	11,100	5,125	27,82
Steam reciprocating engines .....	No.	28	1	7	5	3
Total capacity .....	H.P.	12,255	75	3,565	1,475	2,25
Steam turbines .....	No.	38	...	3	4	8
Total capacity .....	H.P.	117,881	...	7,370	3,600	25,50
Gas and oil engines .....	No.	31	2	1	1	1
Total capacity .....	H.P.	5,838	90	165	50	7
<u>Total Secondary Power</u> .....	Kv.A.	116,800	48	9,466	3,793	24,47
<u>Municipal Stations</u>						
<u>Total Primary Power</u> .....	H.P.	70,857	...	3,501	...	10,74
Steam reciprocating engines .....	No.	16	...	2	...	...
Total capacity .....	H.P.	7,054	...	423	...	...
Steam turbines .....	No.	14	...	3	...	...
Total capacity .....	H.P.	60,572	...	2,658	...	10,74
Gas and oil engines .....	No.	20	...	4	...	...
Total capacity .....	H.P.	3,231	...	420	...	...
<u>Total Secondary Power</u> .....	Kv.A.	60,090	...	2,731	...	10,0

Tableau 8 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1935

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
25,049 43.49	3,418 5.93	3,580 6.21	3,801 6.60	5,108 8.87	<u>Longueur (en milles) des lignes sur poteaux</u> <u>Pourcentage au total pour tout le Canada</u>
2,439 58	744 ...	...	2 ...	39 1	Milles de pylones d'acier Milles de poteaux d'acier
20,882 596	2,616 ...	3,555 ...	3,747 ...	5,003 ...	Milles de poteaux de bois Milles de poteaux de ciment
1,074	58	25	52	65	Milles de cables souterrains et sous-marins
2,438 210 2,228 2,219 9	1,190 198 992 919 73	1,602 648 954 ...	3,031 38 2,993 2,238 755	4,574 2,052 2,522 2,472 50	<u>Total (en milles) pour le service des usines commerciales</u> Non-génératrices Génératrices Hydrauliques A combustible
22,611 6,719 15,892 15,869 23	2,228 1,440 788 730 58	1,978 184 1,794 ...	770 377 393 17 376	534 391 143 126 17	<u>Total (en milles) pour le service des usines municipales</u> Non-génératrices Génératrices Hydrauliques A combustible
6,929	1,638	832	415	2,443	Total (en milles) pour le service des usines non-génératrices
18,120 18,088 32	1,780 1,649 131	2,748 ...	3,386 2,255 1,131	2,665 2,598 67	<u>Total (en milles) pour le service des usines génératrices</u> Hydrauliques A combustible

Tableau 9 - TOTAL FORCE MOTRICE PRIMAIRE, 1935

42,551 20.57	32,921 15.92	...	22,070 10.67	50,851 24.58	<u>Total, force motrice primaire</u> ..... H.P. <u>Pourcentage pour tout le Canada</u>
8 2,600 7 37,000 9 2,951	3 3,206 7 28,840 8 875	...	10 4,440 5 16,250 7 1,380	5 1,275 15 46,511 16 3,065	Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
35,358	29,250	...	19,168	42,598	Total, force motrice secondaire ..... Kv.A.
9,355 2 450	12,000 ... ...	...	21,130 9 3,990	49,276 1 450	<u>Usines Commerciales</u> <u>Total, force motrice primaire</u> ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
3 6,800 5 2,105	3 12,000 ... ...	...	5 16,250 4 890	14 46,361 15 2,465	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
8,063	11,250	...	18,390	41,312	Total, force motrice secondaire ..... Kv.A.
33,196 6 2,150 4 30,200 4 846	20,921 3 3,206 4 16,840 8 875	...	940 1 450 ... 3 490	1,575 4 825 1 150 1 600	<u>Usines Municipales</u> <u>Total, force motrice primaire</u> ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
27,295	18,000	...	778	1,286	Total, force motrice secondaire ..... Kv.A.



Table 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1935

		Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>Total Primary Power</u> .....		H.P. 7,310,973	5,692	156,641	136,070	3,514,452
Per cent of total for Canada .....		100.00	0.08	2.14	1.86	48.07
Water wheels and turbines .....		No. 312	9	55	17	260
Total capacity .....		H.P. 6,807,969	464	81,606	105,985	3,475,705
Steam reciprocating engines .....		No. 98	1	10	10	3
Total capacity .....		H.P. 31,119	75	4,063	4,540	2,250
Steam turbines .....		No. 112	3	18	9	8
Total capacity .....		H.P. 435,978	4,173	69,788	25,300	36,224
Gas and oil engines .....		No. 377	7	17	5	6
Total capacity .....		H.P. 35,907	980	1,184	245	273
<u>Total Dynamo Capacity</u> .....		Kv.A. 6,070,874	4,977	130,801	114,429	3,007,604
Per cent of total for Canada .....		100.00	0.08	2.15	1.88	49.54
Dynamos, A.C. .....		No. 1,181	16	94	33	275
Total capacity .....		Kv.A. 6,063,738	4,969	130,411	113,101	3,007,073
Dynamos, D.C. .....		No. 191	1	6	8	4
Total capacity .....		Kw. 7,136	8	390	1,328	531
<u>Commercial Stations</u>						
<u>Total Primary Power</u> .....		H.P. 5,274,174	4,802	86,285	115,235	3,474,433
Water wheels and turbines .....		No. 548	9	20	11	235
Total capacity .....		H.P. 4,992,805	464	15,146	93,150	3,446,570
Steam reciprocating engines .....		No. 59	1	8	10	3
Total capacity .....		H.P. 18,355	75	3,640	4,540	2,250
Steam turbines .....		No. 69	3	15	7	6
Total capacity .....		H.P. 241,034	4,173	67,130	17,300	25,500
Gas and oil engines .....		No. 279	2	7	5	4
Total capacity .....		H.P. 21,980	90	369	245	113
<u>Total Dynamo Capacity</u> .....		Kv.A. 4,434,623	4,212	72,617	97,916	2,973,930
Dynamos, A.C. .....		No. 763	11	144	25	245
Total capacity .....		Kv.A. 4,429,479	4,204	72,227	96,588	2,973,399
Dynamos, D.C. .....		No. 170	1	6	8	4
Total capacity .....		Kw. 5,144	8	390	1,328	531
<u>Municipal Stations</u>						
<u>Total Primary Power</u> .....		H.P. 2,036,799	890	70,356	20,835	40,019
Water wheels and turbines .....		No. 264	...	35	6	25
Total capacity .....		H.P. 1,815,164	...	66,460	12,835	29,135
Steam reciprocating engines .....		No. 39	...	2	...	...
Total capacity .....		H.P. 12,764	...	423	...	...
Steam turbines .....		No. 43	...	3	2	2
Total capacity .....		H.P. 194,944	...	2,658	8,000	10,724
Gas and oil engines .....		No. 98	5	10	...	2
Total capacity .....		H.P. 13,327	890	815	...	160
<u>Total Dynamo Capacity</u> .....		Kv.A. 1,636,251	765	58,184	16,513	33,674
Dynamos, A.C. .....		No. 418	5	50	8	30
Total capacity .....		Kv.A. 1,634,259	765	58,184	16,513	33,674
Dynamos, D.C. .....		No. 21	...	...	...	...
Total capacity .....		Kw. 1,992	...	...	...	...

Tableau 10 - OUTILLAGE TOTAL, Y COMPRIS CELUI DE LA FORCE MOTRICE PRIMAIRE, 1935

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
121,202 29.01	473,260 6.47	138,218 1.90	151,372 2.07	614,066 8.40	Total, force motrice primaire ..... H.P. Pourcentage du total pour le Canada
338 707,458 19 3,213	40 436,925 11 4,341	... ... 4 1,368	18 69,520 29 8,767	75 560,306 11 2,502	Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... S.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
7 37,000 13 3,531	8 29,240 38 2,754	25 118,942 183 17,908	18 68,300 70 4,785	16 47,011 38 4,247	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
708,201 28.14 360 707,642 6 559	384,036 6.33 85 383,769 9 267	116,952 1.93 111 115,826 95 1,126	124,281 2.05 84 121,610 46 2,671	479,593 7.90 123 479,337 16 256	Capacité totale des dynamos ..... Kv.A. Pourcentage du total pour le Canada Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
520,202 170 510,577 7 668	320,525 21 307,800 1 30	50,569 ... ... 1 18	99,827 16 68,560 22 5,472	602,296 66 550,536 6 1,662	Usines Commerciales Total, force motrice primaire ..... H.P. Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
3 6,800 6 2,155	3 12,000 16 695	10 39,720 138 10,831	7 21,550 66 4,245	15 46,861 35 3,237	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
440,257 176 440,172 4 85	253,897 35 253,850 3 47	41,296 61 40,318 84 978	79,327 61 77,806 44 1,521	471,171 105 470,915 16 256	Capacité totale des dynamos ..... Kv.A. Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
601,000 168 566,879 12 2,545	152,735 18 128,125 13 4,311	87,649 ... ... 3 1,350	51,545 2 960 7 3,295	11,770 5 9,775 5 840	Usines Municipales Total, force motrice primaire ..... H.P. Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
4 30,200 7 1,376	5 17,240 22 2,059	15 79,222 45 7,077	11 46,750 4 540	3 130 3 1,010	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
267,944 184 267,470 2 474	130,139 50 129,919 6 220	75,656 50 75,508 11 148	44,954 23 43,804 2 1,150	8,422 18 8,422 ... ...	Capacité totale des dynamos ..... Kv.A. Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.



Table 11 - MAIN PLANT EQUIPMENT, 1935

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>Total Primary Power</b> ..... H.P.	7,104,142	5,527	142,040	130,945	3,475,905
Per cent of total for Canada .....	100.00	0.08	2.00	1.84	48.93
Water wheels and turbines ..... No.	812	9	55	17	26
Total capacity ..... H.P.	6,807,969	464	81,606	105,985	3,475,705
Steam reciprocating engines ..... No.	54	...	1	5	...
Total capacity ..... H.P.	11,510	...	75	3,065	...
Steam turbines ..... No.	62	3	12	5	...
Total capacity ..... H.P.	257,525	4,173	59,760	21,700	...
Gas and oil engines ..... No.	326	5	12	4	3
Total capacity ..... H.P.	26,838	890	599	195	200
<b>Total Dynamo Capacity</b> ..... Kv.A.	5,893,934	4,929	118,604	110,636	2,973,126
Per cent of total for Canada .....	100.00	0.09	2.01	1.88	50.44
Dynamos, A.C. .... No.	1,052	15	75	24	263
Total capacity ..... Kv.A.	5,888,944	4,921	118,514	109,541	2,972,595
Dynamos, D.C. .... No.	184	1	5	7	4
Total capacity ..... Kw.	5,040	8	90	1,095	531
<b>Commercial Stations</b>					
<b>Total Primary Power</b> ..... H.P.	5,138,200	4,637	75,185	110,110	3,446,610
Per cent of total for Canada .....	100.00	0.09	1.46	2.14	67.08
Water wheels and turbines ..... No.	543	9	20	11	235
Total capacity ..... H.P.	4,992,805	464	15,146	93,150	3,446,570
Steam reciprocating engines ..... No.	31	...	1	5	...
Total capacity ..... H.P.	6,100	...	75	3,065	...
Steam turbines ..... No.	31	3	12	3	...
Total capacity ..... H.P.	123,153	4,173	59,760	13,700	...
Gas and oil engines ..... No.	248	...	6	4	1
Total capacity ..... H.P.	16,142	...	204	195	40
<b>Total Dynamo Capacity</b> ..... Kv.A.	4,317,823	4,164	63,151	94,123	2,949,452
Per cent of total for Canada .....	100.00	0.10	1.46	2.18	68.31
Dynamos, A.C. .... No.	680	10	34	16	235
Total capacity ..... Kv.A.	4,314,325	4,156	63,061	93,028	2,948,921
Dynamos, D.C. .... No.	164	1	5	7	1
Total capacity ..... Kw.	3,498	8	90	1,095	531
<b>Municipal Stations</b>					
<b>Total Primary Power</b> ..... H.P.	1,965,942	890	66,855	20,835	29,298
Per cent of total for Canada .....	100.00	0.05	3.40	1.06	1.45
Water wheels and turbines ..... No.	264	...	35	6	25
Total capacity ..... H.P.	1,815,164	...	66,460	12,835	29,135
Steam reciprocating engines ..... No.	23	...	...	...	...
Total capacity ..... H.P.	5,710	...	...	...	...
Steam turbines ..... No.	29	...	...	2	...
Total capacity ..... H.P.	134,372	...	...	8,000	...
Gas and oil engines ..... No.	78	5	6	...	...
Total capacity ..... H.P.	10,696	890	395	...	161
<b>Total Dynamo Capacity</b> ..... Kv.A.	1,576,161	765	55,453	16,513	23,671
Per cent of total for Canada .....	100.00	0.05	3.52	1.05	1.54
Dynamos, A.C. .... No.	372	5	41	8	2
Total capacity ..... Kv.A.	1,574,619	765	55,453	16,513	23,671
Dynamos, D.C. .... No.	20	...	...	...	...
Total capacity ..... Kw.	1,542	...	...	...	...
<b>Hydraulic Stations</b>					
<b>Total Dynamo Capacity</b> ..... Kv.A.	5,644,534	414	68,029	91,363	2,972,95
Per cent of total for Canada .....	100.00	0.01	1.21	1.62	52.6
Dynamos, A.C. .... No.	796	7	55	15	26
Total capacity ..... Kv.A.	5,643,575	406	68,029	91,038	2,972,42
Dynamos, D.C. .... No.	11	1	...	2	...
Total capacity ..... Kw.	959	8	...	325	53
<b>Fuel Stations</b>					
<b>Total Dynamo Capacity</b> ..... Kv.A.	249,450	4,515	50,575	19,273	17
Per cent of total for Canada .....	100.00	1.81	20.28	7.73	0.0
Dynamos, A.C. .... No.	256	8	20	9	...
Total capacity ..... Kv.A.	245,369	4,515	50,485	18,503	17
Dynamos, D.C. .... No.	173	...	5	5	...
Total capacity ..... Kw.	4,081	...	90	770	...

x - Capacity of one hydraulic station in Saskatchewan included in Manitoba.



Tableau 11 - OUTILLAGE DES USINES PRINCIPALES, 1935

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
1078,651	x 440,339	x 138,218	129,302	563,215	<u>Total, force motrice primaire</u> ..... H.P.
29,26	6.20	1.94	1.82	7.93	Pourcentage du total pour le Canada .
338	40	...	18	75	Roues hydrauliques et turbines ..... Nomb.
1077,458	436,525	...	69,520	560,306	Capacité totale ..... H.P.
11	8	4	19	6	Machines à vapeur, à mouvement alternatif .... Nomb.
613	1,135	1,368	4,327	1,227	Capacité totale ..... H.P.
...	1	25	13	1	Turbines à vapeur ..... Nomb.
...	400	118,942	52,050	500	Capacité totale ..... H.P.
4	30	183	63	22	Moteurs à gaz et à pétrole ..... Nomb.
580	1,879	17,908	3,405	1,182	Capacité totale ..... H.P.
172,843	354,786	116,952	105,113	436,995	<u>Capacité des dynamos</u> ..... Kv.A.
28,38	6.02	1.99	1.78	7.41	Pourcentage du total pour le Canada
342	68	111	63	91	Dynamos, C.A. .... Nomb.
172,734	354,519	115,826	103,542	436,752	Capacité totale ..... Kv.A.
5	9	95	44	14	Dynamos, C.D. .... Nomb.
109	267	1,126	1,571	243	Capacité totale ..... Kw.
<u>Usines Commerciales</u>					
10,847	308,525	50,569	78,697	553,020	<u>Total, force motrice primaire</u> ..... H.P.
9.94	6.01	9.90	1.53	10.76	Pourcentage du total pour le Canada
170	21	...	16	66	Turbines et roues hydrauliques ..... Nomb.
10,579	307,800	...	68,560	550,536	Capacité totale ..... H.P.
5	1	1	13	5	Machines à vapeur à mouvement alternatif .... Nomb.
218	30	18	1,482	1,212	Capacité totale ..... H.P.
...	...	10	2	1	Turbines à vapeur ..... Nomb.
...	...	39,720	5,300	500	Capacité totale ..... H.P.
1	16	138	62	20	Moteurs à gaz et à pétrole ..... Nomb.
50	695	10,831	3,355	772	Capacité totale ..... H.P.
32,194	242,647	41,296	60,937	429,859	<u>Capacité des dynamos</u> ..... Kv.A.
10.01	5.62	0.96	1.41	9.95	Pourcentage du total pour le Canada
168	32	61	45	79	Dynamos, C.A. .... Nomb.
32,109	242,600	40,318	60,516	429,616	Capacité totale ..... Kv.A.
4	3	84	42	14	Dynamos, C.D. .... Nomb.
85	47	978	421	243	Capacité totale ..... Kw.
<u>Usines Municipales</u>					
57,804	131,814	87,649	50,605	10,195	<u>Total, force motrice primaire</u> ..... H.P.
79.75	6.70	4.46	2.57	0.52	Pourcentage du total pour le Canada
168	19	...	2	9	Turbines et roues hydrauliques ..... Nomb.
56,879	129,125	...	960	9,770	Capacité totale ..... H.P.
6	7	3	6	1	Machines à vapeur, à mouvement alternatif .... Nomb.
395	1,105	1,350	2,845	15	Capacité totale ..... H.P.
...	1	15	11	...	Turbines à vapeur ..... Nomb.
...	400	79,222	46,750	...	Capacité totale ..... H.P.
3	14	45	1	2	Moteurs à gaz et à pétrole ..... Nomb.
530	1,184	7,077	50	410	Capacité totale ..... H.P.
10,649	112,139	75,656	44,176	7,136	<u>Capacité des dynamos</u> ..... Kv.A.
78.71	7.12	4.80	2.80	0.45	Pourcentage du total pour le Canada
174	36	50	18	12	Dynamos, C.A. .... Nomb.
10,625	111,919	75,508	43,026	7,136	Capacité totale ..... Kv.A.
1	6	11	2	...	Dynamos, C.D. .... Nomb.
24	220	148	1,150	...	Capacité totale ..... Kw.
<u>Usines Hydrauliques</u>					
1,934	351,912	...	53,200	434,731	<u>Capacité totale des dynamos</u> ..... Kv.A.
29.62	6.23	...	0.94	7.70	Pourcentage du total pour le Canada
330	40	...	14	75	Dynamos, C.A. .... Nomb.
1,909	351,912	...	53,200	434,661	Capacité totale ..... Kv.A.
2	...	...	...	2	Dynamos, C.D. .... Nomb.
25	...	...	...	70	Capacité totale ..... Kw.
<u>Usines à combustible</u>					
909	2,874	116,952	51,913	2,264	<u>Capacité totale des dynamos</u> ..... Kv.A.
0.36	1.15	46.88	20.81	0.91	Pourcentage du total pour le Canada
12	28	111	49	16	Dynamos, C.A. .... Nomb.
825	2,607	115,826	50,342	2,091	Capacité totale ..... Kv.A.
3	9	95	44	12	Dynamos, C.D. .... Nomb.
84	267	1,126	1,571	173	Capacité totale ..... Kw.

endement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.

Table 12 - MAIN PLANT EQUIPMENT CLASSIFIED, 1915

		Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>Primary Power</b>							
..... H.P.	No.	7,104,142	5,527	142,048	130,945	3,475,905	2,078,681
<u>Water wheels and turbines</u> .....	No.	812	2	55	17	260	31
Total H.P.		6,807,969	1	81,605	109,985	3,475,704	2,077,650
Under 500 H.P. ....	No.	150	1	24	3	28	1
Total H.P.		3,646	1	5,406	934	4,185	131
500 - 2,000 H.P. ....	No.	21	1	17	3	5	1
Total H.P.		23,079	1	19,860	2,560	56,218	132,7
2,000 - 5,000 H.P. ....	No.	10	1	10	6	32	1
Total H.P.		35,254	1	33,040	47,501	93,752	168,2
5,000 - 10,000 H.P. ....	No.	30	1	4	4	36	1
Total H.P.		697,191	1	23,300	5,000	249,430	186,1
10,000 - 15,000 H.P. ....	No.	1	1	1	1	28	1
Total H.P.		244,000	1	1	1	302,160	417,1
15,000 - 25,000 H.P. ....	No.	55	1	1	1	17	1
Total H.P.		1,030,300	1	1	80,000	352,500	289,5
25,000 H.P. and up .....	No.	87	1	1	1	60	1
Total H.P.		3,564,900	1	1	1	2,406,900	870,0
<b>Steam reciprocating engines</b>							
..... No.		94	1	1	5	1	1
Total H.P.		11,810	1	75	3,065	1	1
Under 500 H.P. ....	No.	46	1	1	2	1	1
Total H.P.		5,052	1	75	154	1	1
500 H.P. and up .....	No.	48	1	1	3	1	1
Total H.P.		6,758	1	1	2,900	1	1
<b>Steam turbines</b>							
..... No.		50	3	12	5	1	1
Total H.P.		257,521	1,173	59,766	21,700	1	1
Under 500 H.P. ....	No.	2	1	1	1	1	1
Total H.P.		300	1	1	1	1	1
500 - 2,000 H.P. ....	No.	14	2	1	1	1	1
Total H.P.		15,171	2,173	1,340	700	1	1
2,000 - 5,000 H.P. ....	No.	28	1	6	3	1	1
Total H.P.		82,280	2,000	16,720	11,000	1	1
5,000 - 10,000 H.P. and up .....	No.	16	1	5	1	1	1
Total H.P.		159,277	1	41,700	10,000	1	1
<b>Gas and oil engines</b>							
..... No.		326	5	12	4	3	1
Total H.P.		26,818	890	599	195	200	1
<b>Secondary Power</b>							
<b>Dynamos, A.C. and D.C.</b>							
..... No.		1,236	16	80	31	267	1
Total Kv.A.		5,893,924	4,929	118,604	110,636	2,973,126	1,672,
<b>Dynamos, A.C.</b>							
..... No.		1,236	16	75	28	253	1
Total Kv.A.		5,888,924	4,929	118,514	109,548	2,972,595	1,672,
Under 50 K.V.A. ....	No.	1	4	5	1	6	1
Total Kv.A.		3,177	133	188	1	205	1
50 - 200 Kv.A. ....	No.	152	7	10	3	10	1
Total Kv.A.		15,511	730	1,506	316	383	3,
200 - 500 Kv.A. ....	No.	125	1	13	1	22	1
Total Kv.A.		38,594	300	4,038	375	7,397	12,
500 - 1,000 Kv.A. ....	No.	122	1	8	4	33	1
Total Kv.A.		94,291	625	6,030	2,875	25,030	48,
1,000 - 5,000 Kv.A. ....	No.	253	2	27	11	61	1
Total Kv.A.		610,713	2,125	67,025	28,475	134,005	209,
5,000 - 10,000 Kv.A. ....	No.	100	1	6	1	22	1
Total Kv.A.		753,367	1	39,675	7,500	146,900	354
10,000 - 15,000 Kv.A. ....	No.	68	1	1	1	31	1
Total Kv.A.		734,165	1	1	1	318,000	247
15,000 - 25,000 Kv.A. ....	No.	54	1	1	1	20	1
Total Kv.A.		1,019,800	1	1	70,000	403,250	154
25,000 Kv.A. and up .....	No.	71	1	1	1	57	1
Total Kv.A.		2,619,285	1	1	1	1,932,785	640
<b>Dynamos, D.C.</b>							
..... No.		184	1	5	7	4	1
Total Kw.		5,040	1	30	1,695	531	1
Under 50 Kw. ....	No.	1	1	1	1	1	1
Total Kw.		1,014	1	1	1	1	1
50 - 200 Kw. ....	No.	1	1	1	200	1	1
Total Kw.		1,014	1	1	1	1	1
200 - 500 Kw. ....	No.	1	1	1	200	1	1
Total Kw.		1,014	1	1	1	1	1
500 Kw. and up .....	No.	1	1	1	1	1	1
Total Kw.		1,014	1	1	1	1	1



Tableau 12 - OUTILLAGE CLASSIFIÉ DES USINES PRINCIPALES, 1935

Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal	
40,339	138,218	129,302	563,215	5,138,200	1,965,942	<u>Force motrice primaire</u> ..... H.P.
40	...	18	75	548	264	<u>Turbines et roues hydrauliques</u> ..... Nomb.
36,925	...	69,520	560,306	4,992,805	1,815,164	Total H.P.
1	...	10	18	103	50	Moins de 500 H.P. .... Nomb.
125	...	1,920	3,661	17,211	12,629	Total H.P.
...	...	...	10	119	91	500 - 2,000 H.P. .... Nomb.
...	...	...	12,070	128,594	105,485	Total H.P.
4	...	2	12	57	37	2,000 - 5,000 H.P. .... Nomb.
2,800	...	8,000	36,200	264,275	105,250	Total H.P.
21	...	4	11	74	32	5,000 - 10,000 H.P. .... Nomb.
10,000	...	23,600	78,375	499,725	196,100	Total H.P.
5	...	...	8	57	19	10,000 - 15,000 H.P. .... Nomb.
6,000	...	...	97,500	647,100	236,300	Total H.P.
3	...	2	12	38	16	15,000 - 25,000 H.P. .... Nomb.
0,000	...	35,000	212,500	741,000	289,500	Total H.P.
6	...	...	4	70	17	25,000 et plus H.P. .... Nomb.
8,000	...	...	120,000	2,694,900	870,000	Total H.P.
8	4	19	6	31	23	<u>Machines à vapeur, à mouvement alternatif</u> ... Nomb.
1,135	1,368	4,327	1,227	6,100	5,710	Total H.P.
8	3	16	5	27	19	Moins de 500 H.P. .... Nomb.
1,135	618	2,017	427	2,400	2,650	Total H.P.
...	1	3	1	4	4	500 H.P. et plus .... Nomb.
...	750	2,310	800	3,700	3,060	Total H.P.
1	25	13	1	31	29	<u>Turbines à vapeur</u> ..... Nomb.
400	118,942	52,050	500	123,153	134,372	Total H.P.
1	1	...	...	...	2	Moins de 500 H.P. .... Nomb.
400	400	...	...	...	800	Total H.P.
...	7	2	1	9	5	500 - 2,000 H.P. .... Nomb.
...	8,458	2,000	500	10,001	5,170	Total H.P.
...	10	8	...	14	14	2,000 - 5,000 H.P. .... Nomb.
...	28,210	24,350	...	38,186	44,094	Total H.P.
...	7	3	...	8	8	5,000 - 10,000 H.P. .... Nomb.
...	81,874	25,700	...	74,966	84,308	Total H.P.
30	183	63	22	248	78	<u>Moteurs à gaz et à pétrole</u> ..... Nomb.
1,879	17,908	3,405	1,102	16,142	10,596	Total H.P.
						<u>Force motrice secondaire</u>
77	206	107	105	804	392	<u>Dynamos, C.A. et C.D.</u> ..... Nomb.
1,786	116,952	105,113	436,995	4,317,823	1,576,161	Total Kw.A.
68	111	63	91	680	372	<u>Dynamos, C.A.</u> ..... Nomb.
1,519	115,826	103,542	436,752	4,314,325	1,574,619	Total Kw.A.
13	25	10	7	52	27	Moins de 50 Kw. .... Nomb.
308	324	262	195	1,598	775	Total Kw.A.
11	37	20	17	101	52	50 - 200 Kw. .... Nomb.
1,054	4,377	1,992	1,808	10,318	6,281	Total Kw.A.
5	22	11	10	61	30	200 - 500 Kw. .... Nomb.
1,557	6,781	3,075	2,830	18,235	20,344	Total Kw.A.
...	5	3	8	74	34	500 - 1,000 Kw.A. .... Nomb.
...	3,209	2,088	5,644	54,021	40,870	Total Kw.A.
14	16	14	12	172	91	1,000 - 5,000 Kw.A. .... Nomb.
1,552	7,845	42,375	43,950	400,042	210,711	Total Kw.A.
11	4	2	14	66	43	5,000 - 10,000 Kw.A. .... Nomb.
1,780	10,000	11,200	97,700	451,005	342,192	Total Kw.A.
3	8	1	6	51	17	10,000 - 15,000 Kw.A. .... Nomb.
1,000	25,000	12,500	75,625	555,565	178,600	Total Kw.A.
9	1	2	10	45	9	15,000 - 25,000 Kw.A. .... Nomb.
1,500	18,750	30,000	165,000	846,750	112,000	Total Kw.A.
...	...	...	1	58	11	25,000 Kw.A. et plus .... Nomb.
...	...	...	44,000	1,970,795	642,500	Total Kw.A.
9	95	44	14	164	20	<u>Dynamos, C.D.</u> ..... Nomb.
267	1,126	1,571	243	3,498	1,542	Total Kw.
7	25	12	14	157	16	Moins de 50 Kw. .... Nomb.
1,422	1,122	221	247	1,848	267	Total Kw.
2	...	...	...	4	2	50 - 200 Kw. .... Nomb.
125	...	...	...	200	125	Total Kw.
...	...	...	...	1	1	200 - 500 Kw. .... Nomb.
...	...	400	...	200	400	Total Kw.
...	...	...	...	2	1	500 Kw. et plus .... Nomb.
...	...	750	...	1,150	750	Total Kw.



Table 13 - ELECTRIC ENERGY GENERATED, 1935

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>ALL STATIONS</b>					
Total kilowatt hours generated ..... (thousands)	23,283,033	5,127	389,144	390,003	12,628,654
Per cent of total for Canada .....	100.00	0.02	1.67	1.68	54.1
Kilowatt hours generated by non-generating stations ..... (thousands)	740	...	268	1	...
Kilowatt hours generated by generating stns... (thousands)	23,282,293	5,127	388,876	390,002	12,628,654
Kv.A. capacity of generating stations .....	6,035,523	5,977	118,942	110,636	2,997,648
Ratio of output to maximum capacity ..... p.c.	44.8	12.8	37.3	40.2	48
Average kilowatt hours per Kv.A. ....	3,858	1,030	3,269	3,525	4,2
<b>GENERATING STATIONS</b>					
<b>Commercial Stations</b>					
<b>Total</b>					
Kilowatt hours generated ..... (thousands)	17,767,712	4,345	167,928	349,272	12,583,149
Kv.A. capacity .....	4,419,787	4,212	63,364	94,123	2,973,949
Ratio of output to maximum capacity ..... p.c.	46.4	11.8	30.3	42.4	49
Average kilowatt hours per Kv.A. ....	4,020	1,032	2,650	3,711	4,2
<b>Hydraulic Stations</b>					
Kilowatt hours generated ..... (thousands)	17,545,489	352	27,303	326,819	12,583,049
Kv.A. capacity .....	4,300,028	462	13,099	81,100	2,973,849
Ratio of output to maximum capacity ..... p.c.	47.1	8.7	23.8	46.0	49
Average kilowatt hours per Kv.A. ....	4,080	762	2,084	4,030	4,2
<b>Fuel Stations</b>					
Kilowatt hours generated ..... (thousands)	222,223	3,993	140,625	22,453	16,427
Kv.A. capacity .....	119,692	3,750	50,265	13,023	16,427
Ratio of output to maximum capacity ..... p.c.	21.2	12.2	31.9	19.7	1.4
Average kilowatt hours per Kv.A. ....	1,857	1,065	2,798	1,724	1,4
<b>Municipal Stations</b>					
<b>Total</b>					
Kilowatt hours generated ..... (thousands)	5,514,581	782	220,948	40,730	45,823
Kv.A. capacity .....	1,615,803	765	55,578	16,513	23,821
Ratio of output to maximum capacity ..... p.c.	40.2	11.7	45.4	28.2	21
Average kilowatt hours per Kv.A. ....	3,413	1,022	3,975	2,467	1,9
<b>Hydraulic Stations</b>					
Kilowatt hours generated ..... (thousands)	5,341,522	...	220,533	22,303	45,823
Kv.A. capacity .....	1,486,045	...	55,268	10,263	23,821
Ratio of output to maximum capacity ..... p.c.	41.0	...	45.5	24.8	21
Average kilowatt hours per Kv.A. ....	3,594	...	3,990	2,173	1,9
<b>Fuel Stations</b>					
Kilowatt hours generated ..... (thousands)	173,059	782	415	18,427	16,427
Kv.A. capacity .....	129,758	765	310	6,250	16,427
Ratio of output to maximum capacity ..... p.c.	15.2	11.7	15.3	33.7	1.4
Average kilowatt hours per Kv.A. ....	1,334	1,022	1,339	2,948	1,4
<b>TOTAL HYDRAULIC STATIONS</b>					
Kilowatt hours generated ..... (thousands)	22,887,011	352	247,836	349,122	12,628,654
Kv.A. capacity .....	5,786,073	462	68,367	91,363	2,997,648
Ratio of output to maximum capacity ..... p.c.	46.0	8.7	41.4	43.6	48
Average kilowatt hours per Kv.A. ....	3,956	762	3,625	3,821	4,2
Kilowatt hours generated by water power ..... (thousands)	22,883,735	320	247,815	349,122	12,628,654
Kilowatt hours generated by auxiliary plants ... (thousands)	3,276	32	21	...	...
<b>TOTAL FUEL STATIONS</b>					
Kilowatt hours generated ..... (thousands)	395,282	4,775	141,040	40,880	16,427
Kv.A. capacity .....	249,450	4,515	50,575	19,273	16,427
Ratio of output to maximum capacity ..... p.c.	18.1	12.1	31.8	24.2	1.4
Average kilowatt hours per Kv.A. ....	1,585	1,058	2,789	2,121	1,4
<b>CONSUMPTION OF ELECTRIC ENERGY (THOUSANDS OF KILOWATT HOURS)</b>					
Total kilowatt hours generated .....	23,283,033	5,127	389,144	390,003	12,628,654
Kilowatt hours imported from the United States .....	656	...	...	59	...
Kilowatt hours imported from other provinces .....	...	...	...	5,610	...
Kilowatt hours exported to the United States .....	1,359,021	...	...	14,420	2,265
Kilowatt hours exported to other provinces .....	...	...	...	...	...
Kilowatt hours for consumption in Canada .....	21,924,668	5,127	389,144	381,252	10,362
Domestic service .....	1,769,848	1,722	25,937	20,597	226
Commercial light .....	871,537	1,060	13,805	12,903	195
Small power .....	456,685	603	10,431	6,074	102
Large power .....	15,991,203	661	297,074	324,544	8,971
Street lighting .....	187,857	242	4,395	3,131	37
Free service (other than street lighting) .....	28,218	...	729	416	15
Losses .....	2,619,320	839	36,773	13,587	814

† Excludes exports to other provinces and/or to the United States.

Tableau 13 - ENERGIE ELECTRIQUE GÉNÉRÉE, 1935

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
					<u>TOUTES USINES</u>
6,653,219 28.58	1,342,093 5.76	138,479 0.60	208,054 0.89	1,528,252 6.56	Total kw. heure générés .....(milliers)
					Pourcentage du total pour le Canada
					Kilowatt-heure générés par les usines non-génératrices .....(milliers)
6,653,219 1,704,842 45.9 3,903	306 1,341,787 379,786 40.3 3,533	138,479 116,952 13.5 1,184	208,054 123,503 19.2 1,685	165 1,528,087 478,281 36.5 3,195	Kilowatt-heure générés par les usines génératrices en Kw.A. Proportion de la production à la capacité maximum ... p.c. Moyenne de Kw. par Kw.A.
					<u>USINES GÉNÉRATRICES</u>
					<u>Usines Commerciales</u>
					Total
2,058,194 438,733 53.5 4,689	894,578 253,897 40.2 3,523	40,250 41,296 11.1 975	155,604 79,327 22.4 1,962	1,514,383 470,633 36.7 3,218	Kilowatt-heure générés .....(milliers) Capacité en Kw.A. Proportion de la production à la capacité maximum ... p.c. Moyenne des kilowatt-heure per Kw.A.
					<u>Usines Hydrauliques</u>
2,058,052 438,733 53.6 4,691	893,955 253,350 40.3 3,529	...	143,588 70,740 23.2 2,030	1,512,321 468,654 36.8 3,227	Kilowatt-heure générés .....(milliers) Capacité en Kw.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kw.A.
					<u>Usines à combustible</u>
142 205 7.9 693	623 547 13.0 1,139	40,250 41,296 11.1 975	12,016 8,587 16.0 1,399	2,062 1,979 11.9 1,042	Kilowatt-heure générés .....(milliers) Capacité en Kw.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kw.A.
					<u>Usines Municipales</u>
					Total
595,025 265,904 43.1 3,630	447,209 125,889 40.5 3,552	98,229 75,656 14.8 1,298	52,450 44,176 13.6 1,287	13,704 7,648 20.5 1,792	Kilowatt-heure générés .....(milliers) Capacité en Kw.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kw.A.
					<u>Usines hydrauliques</u>
594,046 265,200 43.2 3,631	444,310 123,562 41.1 3,596	...	1,669 850 22.4 1,964	13,237 7,363 20.5 1,798	Kilowatt-heure générés .....(milliers) Capacité en Kw.A. Proportion de production à la capacité maximum .....p.c. Moyenne de kilowatt-heure par Kw.A.
					<u>Usines à combustible</u>
979 704 15.9 1,391	2,899 2,327 14.2 1,246	98,229 75,656 14.8 1,298	50,781 43,326 13.4 1,172	467 285 18.7 1,639	Kilowatt-heure générés .....(milliers) Capacité en Kw.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kw.A.
					<u>TOUTES USINES HYDRAULIQUES</u>
652,098 703,933 45.9 3,904 651,223 875	1,338,265 376,912 40.5 3,551 1,338,176 89	...	145,257 71,590 23.2 2,029 145,063 194	1,525,558 476,017 36.6 3,205 1,523,494 2,064	Kilowatt-heure générés .....(milliers) Capacité en Kw.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kw.A. Kw.-heure générés par force motrice hydraulique ....(milliers) Kw.-heure générés par les usines auxiliaires .....(milliers)
					<u>TOUTES USINES A COMBUSTIBLE</u>
1,121 909 14.1 1,233	3,522 2,874 14.0 1,225	138,479 116,952 13.5 1,184	62,797 51,913 13.8 1,210	2,529 2,264 12.8 1,117	Kilowatt-heure générés .....(milliers) Capacité en Kw.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kw.A.
					<u>CONSOMMATION D'ENERGIE ELECTRIQUE (EN MILLIERS DE KW.H.)</u>
653,219 260,385 343,671 ...	1,342,093 178 ...	138,479 ...	208,054 357 1,733 ...	1,528,252 ...	Total de kilowatt-heure générés Kilowatt-heure importés des Etats-Unis Kilowatt-heure importés d'autres provinces Kilowatt-heure exportés aux Etats-Unis Kilowatt-heure exportés à d'autres provinces
569,933 023,929 390,518 217,750 571,444 91,980 2,813 271,499	1,342,271 289,314 139,260 54,099 661,006 18,590 4,527 175,475	138,479 35,402 18,691 18,455 39,072 7,377 71 19,411	210,144 31,636 26,463 28,248 76,893 7,878 1,306 37,720	1,525,976 115,026 73,707 18,154 1,048,766 17,219 3,123 249,981	Kilowatt-heure consommés au Canada Service domestique Eclairage commercial Petite force motrice Grosse force motrice Eclairage des rues Service gratuit (autre que l'éclairage des rues) Pertes

Inclut les exportations par d'autres provinces et/ou aux Etats-Unis.



Table 14 - FUEL, 1935

Provinces	Bituminous Coal Charbon bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
Canada .....	301,186	1,123,194	2,973	10,623
Prince Edward Island .....	5,328	29,941	...	...
Nova Scotia .....	107,923	403,670	...	...
New Brunswick .....	37,855	148,677	2,282	7,208
Quebec .....	...	...	...	...
Ontario .....	40	240	691	3,415
Manitoba .....	2,976	12,480	...	...
Saskatchewan .....	118,618	488,971	...	...
Alberta .....	24,785	29,429	...	...
British Columbia and Yukon .....	3,661	9,786	...	...

	Fuel Oil Huile combustible	
	Quantity Quantité	Value Valeur
	Gal.	\$
Canada .....	4,587,959	367,720
Prince Edward Island .....	90,411	9,887
Nova Scotia .....	99,678	11,300
New Brunswick .....	31,589	3,345
Quebec .....	39,254	3,439
Ontario .....	194,506	15,926
Manitoba .....	235,228	32,926
Saskatchewan .....	3,255,964	228,912
Alberta .....	190,425	28,220
British Columbia and Yukon .....	450,904	33,765

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu. ft.



Tableau 14 - COMBUSTIBLE, 1935

Lignite Coal Charbon Lignite Canadian - Canadien		Gasolene Gazoline		Kerosene Kérosène	
Quantity quantité	Value Valeur	Quantity quantité	Value Valeur	Quantity quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
94,102	145,272	39,863	8,693	22,520	5,096
...	...	75	20	90	25
...	...	...	...	...	...
...	...	...	...	...	...
...	...	175	37	...	...
60	80	8,591	1,363	...	...
1,183	3,791	121	37	6,485	1,440
22,713	37,181	16,275	3,670	8,950	2,170
70,146	104,220	14,525	3,541	7,031	1,451
...	...	101	25	24	10

Wood Bois		Natural Gas Gaz naturel		Other Fuel Autre Combustible	Total
Quantity quantité	Value Valeur	Quantity quantité	Value Valeur	Value Valeur	Value Valeur
Cords Cordes	\$	1,000 cu. ft. 1,000 pds. cu.	\$	\$	\$
11,907	31,414	313,866	11,466	351,398	2,054,876
125	500	...	...	...	40,373
...	...	...	...	749,193	764,163
30	100	...	...	...	159,330
...	...	...	...	...	3,476
1,610	817	...	...	...	21,841
6,067	19,304	...	...	2,205	72,183
20	50	...	...	...	760,954
3,585	6,478	313,866	11,466	...	184,805
47	4,165	...	...	...	47,751

Note: Tonne = 2,000 livres  
Gallon = Imperial  
Cords = 128 pds. cu.









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**CANADA**

**DOMINION BUREAU OF STATISTICS**

**TRANSPORTATION & PUBLIC UTILITIES BRANCH**

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**CENSUS OF INDUSTRY**

**1936**

Electric power statistics

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

(Prepared in collaboration with the Dominion  
Water and Power Bureau, Department of  
Mines and Resources)



OTTAWA  
1938

Price 25 cents





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**OTTAWA**

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CENTRAL ELECTRIC STATION INDUSTRY, 1936

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 24 stations which were holding generating equipment classed as auxiliary plant equipment. Seventeen of them purchased all their electric energy and the remaining seven generated only 1,579,289 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of some stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods and the annual reports are also comparable.

The output of central electric stations rose fairly continuously up to May, 1930, and for the following two years declines were reported, but from the middle of 1932 to the end of 1937 the improvement has been fairly steady and rapid and the index number of monthly productions reached a peak at 240 for June, 1937, the average of 1926 being 100. The low point reached in 1932 was an index number of 123 for July and the previous high point was 56 for May, 1930.

The total output for the year was 25,402,282,000 kilowatt hours which, however, was only 47.4 per cent of the rated capacity of the equipment. Of course a ratio of 100 per cent is not possible with varying loads, but in 1928 the ratio was 51.2 per cent. The 1936 ratio was an increase of 2.6 points over the 1935 ratio and it was due to several causes, including increased consumption in mines and manufacturing, especially the pulp and paper mills, and in commercial lighting and domestic uses. An increasing quantity of off-peak or secondary power has been produced for consumption in electric boilers which in 1936 amounted to 6,942,841,000 kilowatt hours, or 27 per cent of the total output. The corresponding figures for 1935 were 6,312,387,000 kilowatt hours and 27 per cent. Thus, with an increase in total output of 2,119,249,000 kilowatt hours, or 9.1 per cent, this secondary power increased 630,454,000 kilowatt hours, or 10 per cent. Exports of surplus power to the United States increased by 129,669,363 kilowatt hours and total exports increased from 1,359,020,541



kilowatt hours in 1935 to 1,573,980,242 kilowatt hours, or by 214,959,701 kilowatt hours which, with the small quantity imported, left 16,836,226,000 kilowatt hours for other uses in Canada, including line and transformer losses. This was 273,945,000 kilowatt hours, or 8.2 per cent, above the firm power consumption for 1935. The pulp and paper industry is the largest single consumer of the output of central electric stations, taking 5,636,108,000 kilowatt hours for boilers and 4,473,530,000 kilowatt hours for power, lighting, etc., or 40 per cent of the total output, and, in addition, it produced 1,258,327,000 kilowatt hours for use in its mills. This industry which has been increasing its output of pulp, paper and kindred products at a rapid rate has been an important factor in the growth of the central electric station output. The consumption for domestic lighting (lighting of residences) and other domestic uses continued to grow, increasing from 1,769,848,000 kilowatt hours in 1935 to 1,837,116,000 kilowatt hours, or 6.6 per cent.

Electricity is exported from Canada only by license granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1937, the export duty amounted to \$389,965 as against \$305,710 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export for the calendar year 1936, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

**KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES  
(CALENDAR YEAR 1936)**

Company	Produced for Export Kilowatt Hours	Exported Kilowatt Hours
Hydro Electric Power Commission of Ontario .....	377,046,500	372,415,114
" " " " " (Surplus)	304,826,400	299,406,823
Cedar Rapids Manufacturing and Power Co., Ltd. ..	497,191,144	476,789,253
Canadian Niagara Power Co., Ltd. ....	391,377,800	350,025,172
" " " " " (Surplus) .....	34,706,000	34,706,000
Western Power Company of Canada, Ltd. ....	23,535,200	23,535,200
Ontario and Minnesota Power Co., Ltd. ....	14,675,311	14,072,901
Maine and New Brunswick Electric Power Co. ....	211,180	183,727
British Columbia Electric Railway Co., Ltd. ....	289,246	289,246
Maritime Electric Company, Ltd. ....	1,708,860	1,708,860
Southern Canada Power Company .....	390,286	390,286
Northern British Columbia Power Co. ....	53,660	53,660
Fraser Companies, Ltd. ....	4,140,890	4,129,000
Detroit and Windsor Subway Company .....	257,300	257,300
Manitoba Power Commission .....	146,700	146,700
Total .....	1,650,556,477	1,578,109,242
Kilowatt hours produced for export and exported by central electric stations only .....	1,646,415,587	1,573,980,242

Of the total output of 25,402,232,000 kilowatt hours, 24,932,705,000 kilowatt hours, or over 98 per cent, were produced by water power, whereas only 459,463,000 kilowatt hours were produced by plants using only thermal engines and 10,109,000 kilowatt hours were produced by auxiliary equipment in hydraulic and non-generating stations.

The total hydraulic installation in all industries in Canada in 1936, as compiled by the Dominion Water and Power Bureau, was 7,945,590 horse-power which was about 13 per

cent of the total that the recorded falls would warrant installing under present day practices. The available and developed water power in Canada is shown in the following table.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24-hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 3 6	1 9 3 7
	(2)	(3)	(4)	(5)
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island .....	3,000	5,300	2,439	2,439
Nova Scotia .....	20,800	128,300	120,667	123,437
New Brunswick .....	68,600	169,100	133,681	133,681
Quebec .....	8,459,000	13,064,000	3,883,320	3,999,686
Ontario .....	5,330,000	6,940,000	2,561,905	2,577,380
Manitoba .....	3,309,000	5,344,500	392,825	405,325
Saskatchewan .....	542,000	1,082,000	42,035	61,035
Alberta .....	390,000	1,049,500	71,597	71,597
British Columbia .....	1,931,000	5,103,500	718,922	719,972
Yukon and Northwest Territories	294,000	731,000	18,199	18,199
CANADA .....	20,347,400	33,617,200	7,945,590	8,112,751

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power.

The following table shows the provincial production plus imports less exports, the net amount being the consumption within each province including all line losses; the deliveries to electric boilers in each province are shown here segregated from other uses. The consumption of electric energy is further analyzed in table 14.

CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)  
(Thousands of Kilowatt Hours)

Province	Secondary Power Delivered to Electric Boilers 1936	Other Uses and Line Losses 1936	Total		Increase	
			1 9 3 6	1 9 3 5	1936 over 1935	
					Kw.Hrs.	Per Cent
P.E. Island .....	...	5,769	5,769	5,127	642	12.52
Nova Scotia .....	...	412,294	412,294	389,144	23,150	5.95
New Brunswick ...	47,357	368,246	415,603	381,252	34,351	9.01
Quebec .....	5,325,970	5,812,128	11,138,098	10,362,342	775,756	7.49
Ontario .....	1,130,139	7,115,836	8,245,975	7,569,933	676,042	8.93
Manitoba .....	434,130	1,140,800	1,574,930	1,342,271	232,659	17.33
Saskatchewan ....	...	145,219	145,219	138,479	6,740	4.87
Alberta .....	...	219,565	219,565	210,144	9,421	4.48
Br. Columbia & Yukon	5,245	1,666,369	1,671,614	1,525,976	145,638	9.54
CANADA .....	6,942,841	16,886,226	23,829,067	21,924,668	1,904,399	8.69



TABLE 1 - COMPARATIVE SUMMARY, 1927-1936

During the year the number of hydro-electric plants was decreased by four and the number of fuel plants, or plants using thermal engines exclusively, was reduced by one. The capital has been increasing steadily, 1936 being 71 per cent above 1927 and 1.6 per cent, or \$23,295,481, above 1935. During 1936 revenue increased by \$8,687,219, or 0.8 per cent, and expenses (wages, power purchased, fuel, and taxes) were less than in 1935 by \$1,686,084. Pole line mileage was extended 1,834 miles and the number of customers was larger by 46,090. Since 1927, 300,547 domestic customers have been added to the lines and the production of electricity has almost doubled. The generator capacity of the industry has also doubled since 1927 and at the close of 1936 amounted to 6,025,999 kilovolt amperes.

TABLE 2 - DOMESTIC SERVICE, 1930-1936

This table, which is a new table in this report, shows the number of customers, the consumption, revenue, and averages computed from these for domestic service including farm service for 1930 to 1936 which is as far back as all the data are available. In all provinces the number of customers increased between 1930 and 1936, the percentages ranging from 1.5 per cent in Saskatchewan to 28.2 per cent in Nova Scotia. The total consumption also increased in all provinces, Nova Scotia leading here also with an increase of 83.4 per cent. All provinces except Quebec and Saskatchewan showed increased revenues from domestic service and these two provinces showed increases in 1936 over 1935. The average annual consumption per customer varied widely, Manitoba leading with an average in 1936 of 3,903 kilowatt hours per customer and Prince Edward Island with the smallest consumption at 465 kilowatt hours. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario, and British Columbia have been remarkably close together throughout these seven years. Domestic services are further discussed at the end of this report.

TABLE 3 - POWER PLANTS

The definition of a central electric station as adopted for census purposes was given at the beginning of this report. Some organizations operate several systems which are in different municipalities and which are not connected by transmission lines, and, in other cases, many municipalities are served from one power plant or several inter-connected plants. The organizations reporting are counted as they report. If a commercial organization makes a separate report for each of its subsidiary companies each such subsidiary company is counted, and if it includes them all in one report they are counted as only one organization. The nature of control is so varied that it is not practicable to do otherwise. The power plants shown in this table are individual plants, counted irrespective of ownership or location. In some cases two or more of these are operated by one company, some of them being close together and others, miles apart. During the year there was an addition of one power plant in Quebec and two in Alberta and reductions of one plant in Nova Scotia, New Brunswick, Manitoba, and British Columbia and two in Saskatchewan and Prince Edward Island, making a net decrease of five in the total. The plant of the Ottawa Valley Power Company on the Quebec side of the Chats Falls on the Ottawa river with a rating of 112,000 horse-power and 94,000 kv.a. was not producing during 1936 and consequently all data for this plant were excluded from the statistics in these tables. The capital, equipment and all other statistics will be included again in 1937 when the plant resumed operation.

TABLE 4 - CAPITAL

The capital employed in the industry is reported under three heads, viz., generation, transmission and distribution, and general. "Generation" includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. "Transmission and distribution" includes all transmission and distribution towers, poles, wires, cables and conduits and right-of-way, receiving stations and substations and sites, switchboards and step-up transformers in these and in power houses, step-down transformers, meters, etc. "General" includes investments in office



buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal years, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. The averages of total capital per unit of power are more indicative of different classes of stations and service given than costs of similar installations. The same also applies to generation capital per unit of power, only to a lesser degree.

TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 Kw. and under, (5) power, large, over 50 Kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick, and Alberta, which purchased power from other provinces, were lower than they should have been.<sup>7</sup> The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services and for commercial light, line losses were not included, the consumption for these two services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters where different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average cost of 2.03 cents per kilowatt hour for all domestic services compares with an average of 4.65 cents in the United States. The average revenues per horse-power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in tables 12 and 13 were increased one horse-power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro Electric Power Commission's contracts with Quebec companies which call for 88 hours per week for each horse-power purchased. It is quite probable this output is a little too high for all the power imported from Quebec and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in previous reports. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

<sup>7</sup> See 1933 report, page 5, for effect of this omission.



TABLE 6 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Salaries and wages increased from \$22,519,223 in 1935 to \$23,367,091, or by 3.5 per cent, all provinces except Nova Scotia showing larger pay rolls. The fuel bill also increased from \$2,054,876 to \$2,303,786. The increase in taxes during the year was \$975,061, growing from \$7,524,026 in 1935 to \$8,499,087. Commercial stations paid \$7,948,216, or 94 per cent of the total. More than half of the taxes paid by municipal stations was paid by stations in Ontario. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations.

TABLE 7 - EMPLOYEES

Stations in all provinces showed increases in the number of employees, the net increase being 745 employees. The table below analyzes the hours of labour of wage-earners in the industry. Approximately one-third of the employees worked a 43-hour week and two-thirds worked 48 hours or less per week.

NUMBER OF WAGE EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS PER WEEK WERE:

Hours per Week-	40 hrs. or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 & over	Total
P.E. Island	-	-	-	-	32	-	-	-	-	-	7	39
Nova Scotia	73	3	30	6	327	14	9	32	1	64	248	807
New Brunswick	33	1	49	3	83	-	4	210	6	33	17	439
Quebec	226	14	471	18	1,168	500	20	214	12	286	236	3,165
Ontario	661	83	637	99	1,154	825	19	203	73	277	551	4,587
Manitoba	68	6	174	1	533	18	-	-	-	31	27	858
Saskatchewan	13	-	27	27	164	3	7	35	2	60	12	350
Alberta	126	1	34	-	244	-	4	-	-	-	2	411
B.C. & Yukon	315	2	154	8	629	-	-	-	-	-	2	1,110
CANADA	1,515	115	1,576	162	4,334	1,350	63	694	94	751	1,102	11,766
Per cent of Total	12.9	1.0	13.4	1.4	36.8	11.5	.5	5.9	.8	6.4	9.4	100.0

TABLE 8 - CUSTOMERS

As explained under table 4, stations are asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality itself distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. The average number of domestic service customers per 100 population increased from 12.82 in 1935 to 13.10. These averages are based on the Bureau's estimated populations and each residence or family served is counted as one customer. These averages were first computed for 1920 and since then the average for Canada has increased from 8.86 to 13.10, or by 47.3 per cent. Alberta is the only province having its population increase at a faster rate than its domestic service customers during these seventeen years. In New Brunswick the density more than doubled, in Nova Scotia it increased by 97 per cent, in Ontario 64 per cent, in Prince Edward Island 65 per cent, in Saskatchewan 48 per cent, in British Columbia 35 per cent, in Quebec 29 per cent, and in Manitoba 22 per cent. When comparing these rates of increase the densities at the beginning of the period should be analyzed; for example, Manitoba had a density of 8.76 in 1920, or more than twice the density of New Brunswick and three times that of Prince Edward Island.

TABLE 9 - POLE LINE MILEAGE

Transmission and distribution lines have been combined in this table instead of being segregated as in reports previous to 1934 and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario, and Manitoba have extensive mileages.

TABLES 10-11-12-13 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using fuel only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand the greater part of it is held strictly in reserve for emergencies, only 8,530,000 kilowatt hours being generated during the year by this auxiliary equipment. These tables in previous reports were based on equipment and ratings reported in 1923 with additions and deductions as they occurred. For 1936 a recheck of all equipment was made and the necessary revisions and corrections made. As stated previously the Quebec plant at Chats Falls on the Ottawa river was not operating during 1936 and consequently its equipment is not included in the 1936 statistics. This is the main factor in the decrease of 120,489 horse-power in main plant primary power in Quebec. The generator capacity, however, showed an increase of 20,084 Kv.A. despite the exclusion of 94,000 Kv.A. in this plant due to revisions and increases in ratings of generators in a few of the large plants. There was little increase in the total capacity of the equipment during the year; Ontario stations increased by 121,795 horse-power, but changes in the other provinces were small and the total for Canada increased from 7,310,973 to 7,319,893 horse-power including auxiliary plant equipment of 200,621 horse-power. Large hydraulic turbines (over 25,000 H.P.) increased 3 in number and 124,000 horse-power in capacity and the large generators also increased by 3 and 193,590 Kv.A. in capacity.

When checking the equipment for 1936 an attempt was made to secure data on the spare and idle equipment in all plants. This is in addition to the thermal auxiliary equipment of hydraulic and non-generating stations which in most cases is also spare equipment. The total spare equipment reported was 247,061 horse-power exclusive of 112,000 horse-power in the Chats Falls plant which was temporarily idle, but was not included in these statistics for 1936. This total was 3.5 per cent of the main plant equipment and with the 200,621 horse-power of auxiliary plant equipment brought the total to 447,622 horse-power, or 6.1 per cent of all primary equipment capacity. In some systems this spare equipment was held to relieve units as they required overhauling and to take care of short period peak loads and in others it was power in excess of the 1936 requirements. Only a few stations selling surplus power for electric boilers and other such uses reported having spare equipment and the number of all stations reporting any was a small percentage of the total.

Province	Spare Equipment H.P.	Thermal Auxiliary Equipment H.P.	Total H.P.	Per cent of Total Capacity
Prince Edward Island .....	2,500	165	2,665	42.8
Nova Scotia .....	225	14,284	14,509	9.3
New Brunswick .....	1,600	4,725	6,325	4.4
Quebec .....	77,441	38,547	115,988	3.4
Ontario .....	123,999	40,496	164,495	7.3
Manitoba .....	132	31,090	31,222	6.6
Saskatchewan .....	30,306	...	30,306	2.1
Alberta .....	6,951	21,203	28,154	18.6
British Columbia and Yukon..	3,907	50,111	54,018	8.9
TOTAL .....	247,061	200,621	447,682	6.1

TABLE 14 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt-hour meters the kilowatt hours are estimated as best possible. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of main plant and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 Kv.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio for



... 7.4 per cent, an increase of 2.6 points over 1935. The highest ratio was reached in 1928 with ... and the ratio has decreased each succeeding year to 1932. While this ratio will not reach ... the present installations could undoubtedly meet a demand considerably greater than the 1936 ... A few stations have found a market for their off-peak and surplus power by selling it for use in ... electric boilers and this class of sale has been growing quite rapidly. In 1924 this secondary power ... only 260,489,000 kilowatt hours but in 1936 it had grown to 6,942,841,000 kilowatt hours.

ELECTRICITY SOLD FOR USE IN ELECTRIC BOILERS  
(Thousands of Kilowatt Hours)

Month	1933	1934	1935	1936
January	296,520	407,857	554,218	560,230
February	303,184	395,227	500,103	529,423
March	312,943	445,842	518,053	622,203
April	302,020	493,601	515,778	685,527
May	292,976	474,838	523,922	581,429
June	277,626	436,102	462,598	518,029
July	277,769	356,157	427,328	504,160
August	299,100	369,660	414,138	490,277
September	259,575	346,985	459,724	498,474
October	300,911	455,524	600,143	618,109
November	403,413	561,112	636,054	654,015
December	415,173	594,227	632,590	680,960
TOTAL	3,741,210	5,337,133	6,312,387	6,942,841

+ Includes 67,738,000 kilowatt hours not distributed.

TABLE 15 - FUEL

Fuel used is almost entirely local coal, oil and gas and Saskatchewan and Nova Scotia are the only provinces using any substantial quantities of fuel to develop electric energy. Nova Scotia has several large hydro-electric developments, but Saskatchewan has only one which is on the Manitoba boundary and is included with Manitoba stations in these statistics. "Other fuel" is composed almost entirely of steam purchased by a Nova Scotia station.

DOMESTIC SERVICE

Below is a table bringing together and analyzing the domestic service data for each province. The concentration of population in the cities, towns and villages having electric service would affect the number of customers, the number per 100 population, and ratios of consumption to total provincial consumptions and to the domestic consumption in Canada. The price would affect consumption, average bill, average cost per kilowatt hour, and, to a lesser degree, the number of customers. The method of charging for service would also have a marked effect on the average consumption and average cost per kilowatt hour. Flat rate charges and sliding scales which induce increased consumption, particularly the first, tend to greatly increase the kilowatt hour consumption and reduce the average cost per kilowatt hour although they may increase the connected load by only a fraction of the rate of consumption increase. The habits and customs of the people also would have an effect on the consumption. British Columbia ranked first in density of customers, Ontario was second and Quebec third. Manitoba showed by far the lowest average cost per kilowatt hour and the largest consumption per customer and per capita. These were considerably affected by the flat rate for water heaters in Winnipeg. Flat rate water heaters in Ontario also affect Ontario averages, but not to the same extent because the consumption of these heaters was a smaller percentage of the total consumption than in Manitoba.

DOMESTIC SERVICE, 1936

Province	Number of Customers		Average Bill for Year \$	Average per Kilowatt Hour Cents	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer Kw.Hr.	Per Capita Kw. Hr.	Per cent of total Provincial Consumption	Per cent of Dominion Dom. Service Consumption
P.E. Island	4,379	4.76	33.21	7.15	465	22	35.3	.1
Nova Scotia	54,763	10.20	26.61	4.99	533	54	7.1	1.5
New Brunswick	38,660	8.89	27.63	4.84	570	51	5.3	1.2
Quebec	390,711	12.62	19.77	3.19	619	78	2.2	12.8
Ontario	634,052	17.18	27.94	1.61	1,732	298	13.3	58.2
Manitoba	75,858	10.67	39.93	1.02	3,903	416	18.8	15.7
Saskatchewan	46,478	4.99	39.84	5.14	776	39	24.8	1.9
Alberta	59,600	7.72	30.02	5.34	562	43	15.2	1.8
B.C. & Yukon	138,558	18.38	26.11	2.83	922	169	7.6	6.8
CANADA	1,443,059	13.10	26.61	2.03	1,308	171	7.9	100.0

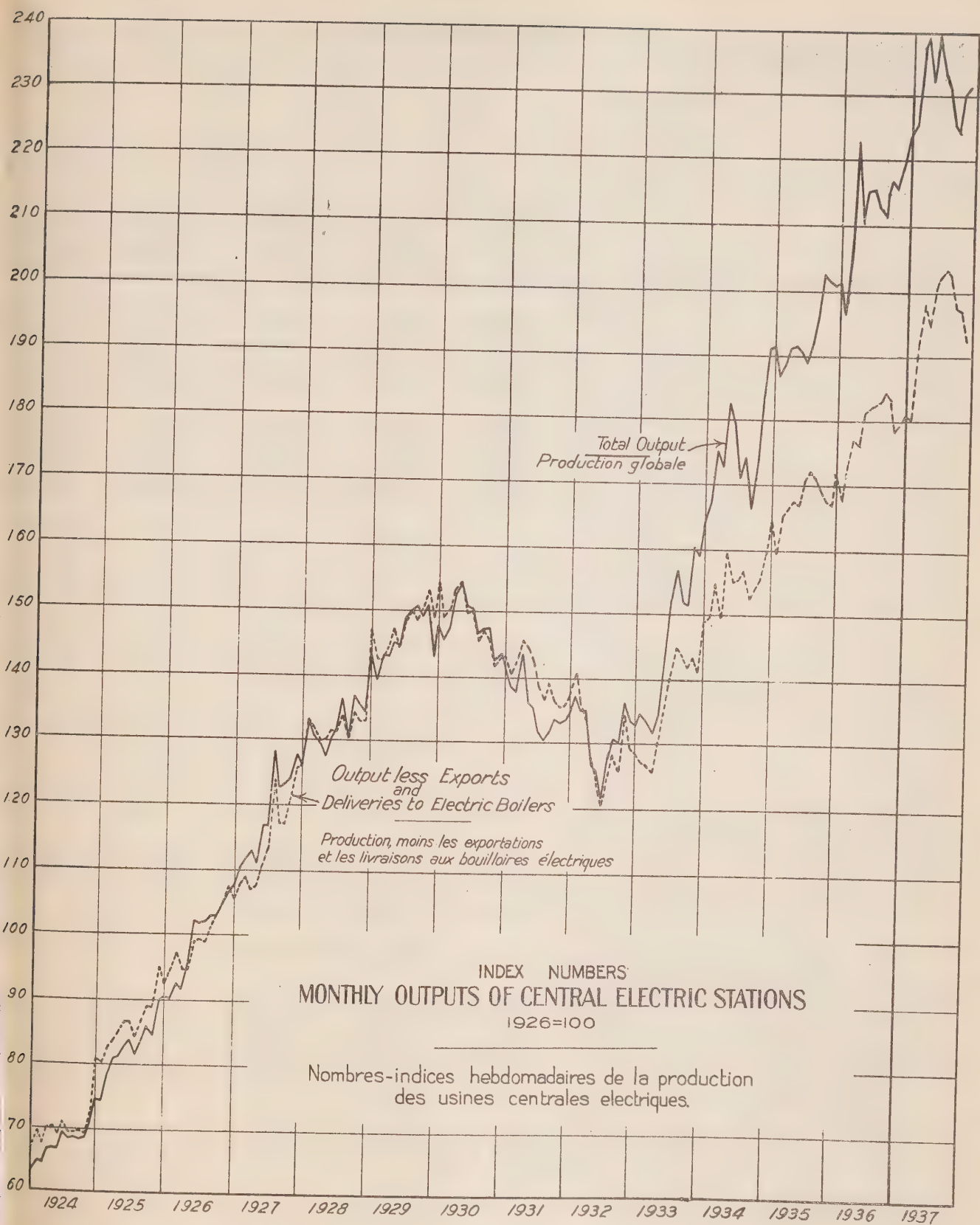




Table 1 - COMPARATIVE SUMMARY, 1927-1936

Principal Data by Class of Station	1936	1935	1934	1933	1932
<b>Electric Power Plants</b>					
Total .....	561	566	573	575	572
Hydraulic .....	312	316	314	314	312
Fuel .....	249	250	259	261	260
Commercial .....	390	397	402	403	402
Municipal .....	171	169	171	172	17
<b>Costs</b>					
Total .....	\$ 1,483,116,649	\$ 1,459,821,168	\$ 1,430,852,166	\$ 1,386,532,055	\$ 1,335,886,987
Commercial .....	\$ 957,466,865	\$ 962,263,142	\$ 956,382,436	\$ 913,946,953	\$ 880,013,400
Municipal .....	\$ 525,649,784	\$ 497,558,026	\$ 474,469,730	\$ 472,585,102	\$ 455,873,587
Generating .....	\$ 1,326,820,103	\$ 1,307,710,173	\$ 1,281,048,308	\$ 1,240,169,785	\$ 1,191,499,567
Non-generating .....	\$ 156,296,546	\$ 152,110,995	\$ 149,803,363	\$ 146,362,270	\$ 144,387,420
<b>Revenue (1)</b>					
Total .....	\$ 135,865,173	\$ 127,177,954	\$ 124,463,613	\$ 117,532,081	\$ 121,212,679
Commercial .....	\$ 78,882,504	\$ 79,341,554	\$ 77,309,001	\$ 73,082,078	\$ 73,124,089
Municipal .....	\$ 56,982,669	\$ 47,836,400	\$ 47,154,612	\$ 44,450,003	\$ 48,088,590
Generating .....	\$ 112,776,015	\$ 105,638,584	\$ 104,089,041	\$ 98,735,084	\$ 100,821,712
Non-generating .....	\$ 23,089,158	\$ 21,539,370	\$ 20,374,572	\$ 18,796,997	\$ 20,390,967
<b>Expenses (2)</b>					
Total .....	\$ 77,939,050	\$ 79,625,134	\$ 75,948,821	\$ 73,051,651	\$ 74,306,251
Commercial .....	\$ 36,530,527	\$ 33,836,054	\$ 31,778,237	\$ 29,169,633	\$ 30,349,320
Municipal .....	\$ 41,408,523	\$ 45,789,080	\$ 44,170,584	\$ 43,882,018	\$ 43,956,931
Generating .....	\$ 41,390,019	\$ 43,904,771	\$ 40,911,118	\$ 38,608,455	\$ 40,262,157
Non-generating .....	\$ 36,549,031	\$ 35,720,363	\$ 35,037,703	\$ 34,443,196	\$ 34,044,094
<b>Telephone Mileage</b>					
Total .....	59,436	57,602	56,214	56,570	53,845
Commercial .....	27,271	26,520	26,476	25,129	25,010
Municipal .....	32,165	31,082	29,738	31,441	28,835
Generating .....	45,099	43,372	42,537	43,625	40,675
Non-generating .....	14,337	14,230	13,677	12,945	13,170
<b>Domestic Service (3)</b>					
Total .....	1,740,793	1,694,703	1,660,079	1,666,882	1,657,454
Commercial .....	1,443,059	1,401,983	1,379,153	1,371,806	1,357,462
Municipal .....	245,144	240,468	229,187	244,283	248,487
Power (small) .....	40,742	40,292	41,429	40,641	28,942
Power (large) .....	9,840	9,989	8,325	8,160	20,593
Street lighting .....	2,008	1,971	1,985	1,992	1,970
<b>Commercial stations</b>	802,676	779,400	760,462	776,581	776,400
<b>Municipal stations</b>	938,117	915,303	899,617	890,301	881,054
<b>Generating stations</b>	866,407	837,278	819,419	843,324	846,420
<b>Non-generating stations</b>	874,386	857,425	840,660	823,558	811,034
<b>Electric Energy Generated</b>					
Total Kilowatt Hours (thousands) .....	25,402,282	23,283,033	21,197,124	17,338,990	16,052,057
Commercial .....	18,515,225	17,767,949	16,060,883	13,665,974	12,338,216
Municipal .....	6,887,057	5,515,084	5,136,241	3,673,016	3,713,841
<b>Exports to the United States (6) .....</b> (thousands) Kw.H.	1,573,980	1,359,021	1,243,079	983,561	659,691
<b>Imports from the United States (6) .....</b> " Kw.H.	765	656	642	608	552
<b>Equipment in Generating Stations (Main Plant Only)</b>					
Total Primary Power .....	7,119,272	7,104,142	6,854,161	6,616,006	6,343,654
Total in commercial stations .....	5,012,968	5,138,200	4,961,639	4,707,096	4,577,493
Total in municipal stations .....	2,106,304	1,965,942	1,892,522	1,908,910	1,766,161
Total Secondary Power .....	6,025,999	5,893,984	5,699,955	5,491,685	5,278,204
Total in commercial stations .....	4,340,869	4,317,823	4,179,536	3,956,475	3,850,009
Total in municipal stations .....	1,685,130	1,576,161	1,520,419	1,535,210	1,428,195
<b>Auxiliary Plant Equipment</b>					
Primary Power .....	200,621	206,831	207,431	193,569	184,879
Secondary Power .....	172,327	176,890	177,244	164,732	157,077

- (1) Duplications excluded.
- (2) Includes wages, cost of power, fuel and taxes, but not other expenses.
- (3) Farm service is included with domestic service.
- (4) Includes small power customers in 1929.
- (5) Revised.
- (6) By central electric stations only. See page 2.



Tableau 1 - SOMMAIRE COMPARATIF, 1927-1936

1 9 3 1	1 9 3 0	1 9 2 9	1 9 2 8	1 9 2 7	Données principales par classes d'usines
559	587	585	601	629	<u>Usines électriques</u>
307	311	300	300	302	<u>Total</u>
252	276	285	301	327	Hydrauliques
396	421	420	428	432	A combustible
163	166	165	173	197	Commerciales
					Municipales
229,988,951	1,238,200,016	1,055,731,532	956,919,603	866,825,285	<u>Capital</u>
785,915,480	723,890,071	685,771,270	614,910,399	528,070,964	<u>Total</u>
444,073,471	414,309,945	369,960,262	342,009,204	338,754,321	Commerciales
9,092,292,089	995,701,285	926,103,973	835,422,031	750,703,270	Municipales
137,696,862	142,498,731	129,627,559	121,497,572	116,122,015	Génératrices
					Non-génératrices
122,310,730	126,038,145	122,883,446	112,326,819	104,033,297	<u>Recettes (1)</u>
72,103,930	73,261,572	70,874,794	64,575,700	59,320,175	<u>Total</u>
50,206,800	52,776,573	52,008,652	47,751,119	44,713,122	Commerciales
101,475,523	104,632,540	102,704,833	92,722,293	86,369,058	Municipales
20,835,207	21,405,605	20,178,613	19,604,526	17,664,239	Génératrices
					Non-génératrices
75,235,767	74,209,469	67,432,418	62,330,860	60,169,781	<u>Dépenses (2)</u>
32,418,131	33,712,063	31,888,591	30,961,337	28,704,496	<u>Total</u>
42,817,636	40,497,406	35,543,827	31,369,523	31,465,285	Commerciales
41,336,873	40,646,659	36,713,723	33,837,618	31,920,941	Municipales
33,898,894	33,562,810	30,718,695	28,493,242	28,248,840	Génératrices
					Non-génératrices
52,399	48,814	42,913	37,333	33,573	<u>Lignes sur poteaux</u>
24,299	23,614	22,356	18,875	16,747	<u>Total</u>
28,100	25,200	20,557	18,458	16,826	Commerciales
39,709	35,707	30,718	25,524	23,246	Municipales
12,690	13,107	12,195	11,809	10,327	Génératrices
					Non-génératrices
1,632,792	1,607,881	1,555,883	1,464,005	1,381,968	<u>Abonnés</u>
1,336,721	1,317,324	1,292,481	1,207,457	1,142,512	<u>Total</u>
244,634	238,847	(4) 233,854	215,728	199,431	Service domestique (3)
25,913	24,836	( 28,001	( 40,820	( 40,025	Eclairage commercial
23,583	25,150	( 1,547	(	(	Force motrice (petite)
1,941	(5) 1,724	...	...	...	Force motrice (grosse)
					Eclairage de rues
758,285	745,608	733,698	677,223	622,823	Usines commerciales
874,507	862,158	822,185	786,782	759,145	Usines municipales
835,460	814,268	796,298	728,872	699,874	Usines génératrices
797,332	793,498	759,585	735,133	682,094	Usines non-génératrices
16,330,867	18,093,802	17,962,515	16,337,804	14,549,099	<u>Energie électrique générée</u>
12,191,139	12,937,014	12,774,107	11,460,974	9,944,422	<u>Total Kw. heures générés (milliers)</u>
4,139,707	5,156,788	5,188,408	4,876,830	4,604,677	Commerciale
					Municipale
1,227,036	1,612,281	1,444,524	1,587,761	1,632,614	Exportations d'électricité aux
5,446	5,757	6,133	5,223	5,020	Etats-Unis (6) .... (milliers) Kw.H.
					Importations d'électricité des
					Etats-Unis (6) .... (milliers) Kw.H.
5,706,757	5,401,108	4,925,555	4,627,667	4,173,349	<u>Machinerie dans les usines génératrices-</u>
4,046,810	3,794,819	3,523,625	3,268,350	2,797,055	<u>(Usines principales seulement)</u>
1,659,947	1,606,289	1,401,930	1,359,317	1,376,294	<u>Total force motrice primaire</u> ..... H.P.
4,727,376	4,474,865	4,048,019	3,764,331	3,385,227	<u>Total dans les usines commerciales</u> ..... H.P.
3,388,926	3,181,428	2,940,210	2,690,097	2,297,005	<u>Total dans les usines municipales</u> ..... H.P.
1,338,450	1,293,437	1,107,809	1,074,234	1,088,222	<u>Total force motrice secondaire</u> ..... Kw.A.
					<u>Total dans les usines commerciales</u> ..... Kw.A.
					<u>Total dans les usines municipales</u> ..... Kw.A.
184,043	171,453	171,888	159,233	145,047	<u>Outils d'usines auxiliaires</u>
157,221	145,678	146,251	135,440	121,863	Force motrice primaire ..... K.P.
					Force motrice secondaire ..... Kv.A.

Duplications exclues.

Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

L'éclairage des fermes est inclus dans l'éclairage domestique.

Comprend les petits consommateurs d'énergie en 1929.

Revisé.

Par usines centrales électriques seulement. Voir page 2.

Table 2.

Tableau 2.

DOMESTIC SERVICE, 1930-1936  
SERVICE DOMESTIQUE, 1930-1936

Tableau 2.

Year Année	Number of Customers Nombre d'usages	Kilowatt Hours Consumed Kilowatt heures consommés	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager	Average Annual Bill Compte moyen de l'année	Revenue per Kw. Hr. Moyenne par Kilowatt Heure	
		(000)	\$	Kw. Hrs.	\$	¢	
CANADA	1930	1,317,324	1,489,574	34,114,680	1,131	25.90	2.29
	1931	1,336,721	1,563,704	35,259,391	1,170	26.38	2.25
	1932	1,357,462	1,639,498	36,422,073	1,208	26.83	2.22
	1933	1,371,806	1,650,395	35,953,823	1,203	26.21	2.18
	1934	1,379,153	1,717,090	36,507,822	1,245	26.47	2.13
	1935	1,401,983	1,769,848	36,773,643	1,262	26.23	2.08
	1936	1,443,059	1,887,116	38,399,102	1,308	26.61	2.03
Change (Changement) 1930-1936							
Amount (Volume)	+ 125,735	+ 397,542	+ 4,284,422	+ 177	+ .71	- .26	
Per cent (P.C.)	+ 9.5	+ 26.7	+ 12.6	+ 15.6	+ 2.7	- 11.4	
PRINCE EDWARD ISLAND	1930	3,785	1,170	112,566	309	29.74	9.62
	1931	3,980	1,343	120,606	337	30.30	8.98
	1932	3,978	1,498	129,835	377	32.63	8.67
	1933	3,970	1,584	135,231	399	34.06	8.54
	1934	4,097	1,605	133,843	392	32.67	8.34
	1935	4,199	1,722	134,740	410	32.08	7.82
	1936	4,379	2,035	145,442	465	33.21	7.15
Change (Changement) 1930-1936							
Amount (Volume)	+ 594	+ 865	+ 32,876	+ 156	+ 3.47	- 2.47	
Per cent (P.C.)	+ 15.7	+ 73.9	+ 29.2	+ 50.5	+ 11.7	- 25.7	
NOVA SCOTIA	1930	42,703	15,924	1,097,500	373	25.70	6.89
	1931	45,252	19,120	1,151,609	423	25.45	6.02
	1932	46,421	21,213	1,201,279	457	25.88	5.66
	1933	47,124	21,800	1,199,951	463	25.46	5.50
	1934	48,852	23,637	1,257,599	484	25.74	5.32
	1935	52,300	25,937	1,330,632	496	25.44	5.13
	1936	54,763	29,212	1,457,054	533	26.61	4.99
Change (Changement) 1930-1936							
Amount (Volume)	+ 12,060	+ 13,288	+ 359,554	+ 160	+ .91	- 1.90	
Per cent (P.C.)	+ 28.2	+ 83.4	+ 32.8	+ 42.9	+ 3.5	- 27.6	
NEW BRUNSWICK	1930	32,426	15,734	839,395	485	25.89	5.33
	1931	33,964	17,676	901,325	520	26.54	5.10
	1932	35,543	19,230	971,597	541	27.34	5.05
	1933	34,959	18,740	954,423	536	27.30	5.09
	1934	35,364	19,607	962,212	554	27.21	4.91
	1935	36,602	20,597	994,895	563	27.18	4.83
	1936	38,660	22,049	1,068,038	570	27.63	4.84
Change (Changement) 1930-1936							
Amount (Volume)	+ 6,234	+ 6,315	+ 228,643	+ 85	+ 1.74	- .49	
Per cent (P.C.)	+ 19.2	+ 40.1	+ 27.2	+ 17.5	+ 6.7	- 9.2	
QUEBEC	1930	374,725	205,457	8,082,058	548	21.57	3.93
	1931	375,764	223,671	8,100,380	595	21.56	3.62
	1932	385,211	239,032	8,210,401	621	21.31	3.43
	1933	385,175	240,110	7,795,948	623	20.24	3.25
	1934	378,705	237,322	7,776,391	627	20.53	3.28
	1935	378,388	226,285	7,297,458	598	19.29	3.22
	1936	390,711	241,799	7,723,973	619	19.77	3.19
Change (Changement) 1930-1936							
Amount (Volume)	+ 15,986	+ 36,342	- 358,085	+ 71	- 1.80	- .74	
Per cent (P.C.)	+ 4.3	+ 17.7	- 4.4	+ 13.0	- 8.3	- 18.8	



Table 2.

DOMESTIC SERVICE, 1930-1936

Tableau 2.

SERVICE DOMESTIQUE, 1930-1936

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kw.Hr.	
Année	Nombre d'usages	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par Kilowatt Heure	
		(000)	\$	Kw.Hrs.	\$	¢	
ONTARIO	1930	563,152	840,992	14,733,013	1,493	26.16	1.75
	1931	579,721	868,072	15,448,069	1,497	26.65	1.78
	1932	585,343	912,169	16,170,224	1,538	27.63	1.77
	1933	598,347	917,649	16,262,707	1,534	27.18	1.77
	1934	605,885	980,978	16,811,849	1,619	27.75	1.71
	1935	618,111	1,023,929	17,171,434	1,657	27.78	1.68
	1936	634,052	1,098,598	17,716,636	1,733	27.94	1.61
Change (Changement) 1930-1936							
Amount (Volume)	+ 79,900	+ 257,606	+ 2,983,623	+ 240	+ 1.78	- .14	
Per cent (P.C.)	+ 12.6	+ 30.6	+ 20.3	+ 16.1	+ 6.8	- 8.0	
MANITOBA	1930	72,395	242,718	2,680,036	3,353	37.02	1.10
	1931	71,324	257,482	2,679,138	3,610	37.56	1.04
	1932	71,954	270,272	2,873,481	3,736	39.93	1.06
	1933	72,935	275,048	2,743,877	3,771	37.62	1.00
	1934	73,545	282,067	2,782,475	3,835	37.83	.99
	1935	74,538	289,314	2,914,963	3,881	39.11	1.01
	1936	75,858	296,110	3,029,140	3,903	39.93	1.02
Change (Changement) 1930-1936							
Amount (Volume)	+ 3,463	+ 53,392	+ 349,104	+ 550	+ 2.91	- .08	
Per cent (P.C.)	+ 4.8	+ 22.0	+ 13.0	+ 16.4	+ 7.9	- 7.3	
SASKATCHEWAN	1930	45,777	35,380	1,405,257	773	41.62	5.39
	1931	44,078	35,524	1,409,029	806	41.04	5.09
	1932	44,952	36,142	1,402,758	804	40.10	4.99
	1933	44,319	36,317	1,775,697	819	40.07	4.89
	1934	44,493	34,906	1,741,371	785	39.14	4.99
	1935	45,451	35,402	1,795,683	779	39.51	5.07
	1936	46,478	36,044	1,851,794	776	39.84	5.14
Change (Changement) 1930-1936							
Amount (Volume)	+ 701	+ 664	- 53,463	+ 3	- 1.78	- .25	
Per cent (P.C.)	+ 1.5	+ 1.9	- 2.8	+ 0	- 4.3	- 4.6	
ALBERTA	1930	57,190	30,458	1,674,340	533	29.28	5.50
	1931	56,890	30,196	1,721,292	531	30.26	5.70
	1932	57,459	29,792	1,714,412	518	29.84	5.75
	1933	57,330	29,668	2,728,351	517	30.15	5.83
	1934	58,375	30,378	1,764,295	520	30.22	5.81
	1935	58,127	31,636	1,714,128	544	29.49	5.42
	1936	59,600	33,481	1,789,422	562	30.02	5.34
Change (Changement) 1930-1936							
Amount (Volume)	+ 2,410	+ 3,023	+ 115,082	+ 29	+ .74	- .26	
Per cent (P.C.)	+ 4.2	+ 9.9	+ 6.9	+ 5.4	+ 2.5	- 2.0	
BRITISH COLUMBIA	1930	125,171	101,742	2,990,515	813	23.89	2.04
	1931	125,748	110,621	3,327,943	880	26.47	3.01
	1932	126,601	110,150	3,348,086	870	26.45	3.04
	1933	127,647	109,479	3,357,638	858	26.30	3.07
	1934	129,837	106,590	3,277,787	821	25.25	3.03
	1935	134,267	115,026	3,419,710	857	25.47	2.97
	1936	138,558	127,788	3,617,603	922	26.11	2.83
Change (Changement) 1930-1936							
Amount (Volume)	+ 13,387	+ 26,046	+ 627,088	+ 109	+ 2.22	- .11	
Per cent (P.C.)	+ 10.7	+ 25.6	+ 21.0	+ 13.4	+ 9.3	+ 3.7	



Table 3 - ELECTRIC POWER PLANTS, 1936

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Total number of generating stations .....	561	5	45	14	96
Per cent of total for Canada .....	100.00	1.60	8.02	2.50	17.11
Commercial .....	390	7	22	10	81
Hydraulic .....	211	6	12	5	79
Coal .....	179	1	10	5	2
Municipal .....	171	2	23	4	15
Hydraulic .....	101	..	19	3	13
Coal .....	70	2	4	1	2
With water wheels and turbines .....	312	6	31	8	92
With steam engines only .....	34	..	1	1	..
With steam turbines only .....	16	1	6	1	..
With gas or oil engines only .....	189	2	7	3	4
With both steam engines and turbines .....	6	..	..	1	..
With both steam and gas or oil engines .....	4	..	..	..	..
With alternating current dynamos only .....	434	8	43	9	92
With direct current dynamos only .....	124	1	2	4	3
With both alternating and direct current dynamos .....	3	..	..	1	1
Commercial Organizations .....	x 364	8	24	22	70
Number generating power .....	274	6	13	9	45
Number buying power for redistribution .....	89	2	11	12	25
Municipalities .....	x 463	2	28	12	28
Number generating power .....	80	2	9	3	10
Number buying power for redistribution .....	382	..	19	9	17
Auxiliary Plants .....	63	2	8	3	7
To hydraulic stations .....	39	2	2	..	6
To non-generating stations .....	24	..	6	3	1

x - Organizations operating in two or more provinces are shown under provinces but are included in total as only one organization.

Tableau 3 - USINES GENERATRICES, 1936

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
133	27	115	62	60	<u>Nombre d'usines génératrices</u>
23.71	4.81	20.50	11.05	10.70	Pourcentage du total pour le Canada
66	14	84	54	52	<u>Commerciales</u>
62	4	..	5	38	Hydrauliques
4	10	84	49	14	A combustible
67	13	31	8	8	<u>Municipales</u>
58	2	..	1	5	Hydrauliques
9	11	31	7	3	A combustible
120	6	..	6	43	Avec roues et turbines hydrauliques
9	4	..	13	6	Avec machines à vapeur seulement
..	..	5	2	1	Avec turbines à vapeur seulement
4	15	108	36	10	Avec moteurs à gaz ou à pétrole seulement
..	1	2	2	..	Avec machines et turbines à vapeur à la fois
..	1	..	3	..	Avec machines à vapeur à gaz et à pétrole
130	22	46	30	54	Avec dynamos à courant alternatif seulement
3	5	69	31	6	Avec dynamos à courant direct seulement
..	..	..	1	..	Avec dynamos à courant alternatif et direct
55	17	67	55	48	<u>Usines commerciales</u>
44	11	65	48	33	Nombre d'usines génératrices
10	6	2	7	14	Nombre d'usines achetant de l'électricité pour la revendre
324	17	22	16	18	<u>Municipalités</u>
17	10	16	6	7	Nombre d'usines génératrices
306	6	6	9	10	Nombre d'usines achetant de l'électricité pour la revendre
11	6	..	9	17	<u>Usines auxiliaires</u>
7	2	..	8	12	Aux usines hydrauliques
4	4	..	1	5	Aux usines non-génératrices

- Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.

Table 4 - CAPITAL, 1936

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
Total Capital .....	1,483,116,649	1,197,126	31,975,685	33,042,392	637,754,82
Per cent of total for Canada .....	100.00	0.08	2.16	2.23	43.0
Generation .....	894,582,974	593,992	20,310,012	23,359,923	455,012,11
Transmission and distribution .....	499,828,127	501,193	9,045,286	8,315,922	144,652,37
General .....	88,705,548	101,941	2,620,387	1,366,547	38,090,34
<u>Total Capital in Commercial Stations .....</u>	<u>957,466,865</u>	<u>997,957</u>	<u>14,715,670</u>	<u>23,228,025</u>	<u>629,141,04</u>
Generation .....	662,701,416	494,692	6,916,351	18,877,280	450,323,25
Transmission and distribution .....	235,282,382	435,434	5,776,259	3,441,060	141,151,50
General .....	59,483,067	67,831	2,023,060	909,685	37,666,19
Non-generating stations .....	38,206,967	7,000	6,208,767	2,149,787	706,99
Generating stations .....	919,259,898	990,957	8,506,903	21,078,238	628,434,05
Hydraulic stations .....	896,151,730	118,391	3,873,797	17,705,932	628,374,75
Fuel stations .....	23,108,168	872,566	4,633,106	3,372,306	59,2
<u>Total Capital in Municipal Stations .....</u>	<u>525,649,784</u>	<u>199,169</u>	<u>17,260,015</u>	<u>9,814,367</u>	<u>8,613,75</u>
Generation .....	231,881,558	99,300	13,393,661	4,482,643	4,688,75
Transmission and distribution .....	264,545,745	65,759	3,269,027	4,874,862	3,500,8
General .....	29,222,481	34,110	597,327	456,862	424,1
Non-generating stations .....	118,089,579	...	1,757,202	1,426,583	2,436,5
Generating stations .....	407,560,205	199,169	15,502,813	8,387,784	6,177,2
Hydraulic stations .....	388,413,747	...	15,375,681	5,034,687	5,869,5
Fuel stations .....	19,146,458	199,169	127,132	3,353,097	307,6
<u>Total Capital in Non-generating Stations .....</u>	<u>156,296,546</u>	<u>7,000</u>	<u>7,965,969</u>	<u>3,576,370</u>	<u>3,143,5</u>
Generation .....	4,195,516	...	2,003,994	558,188	696,8
Transmission and distribution .....	130,446,930	7,000	4,396,607	2,354,970	2,289,3
General .....	21,654,100	...	1,565,368	663,212	157,3
<u>Total Capital in Generating Stations .....</u>	<u>1,326,820,103</u>	<u>1,190,126</u>	<u>24,009,716</u>	<u>29,466,022</u>	<u>634,611,2</u>
Generation .....	890,387,458	593,992	18,306,018	22,801,735	454,315,5
Transmission and distribution .....	369,381,197	494,193	4,648,679	5,960,952	142,363,0
General .....	67,051,448	101,941	1,055,019	703,335	37,933,3
Hydraulic stations .....	1,284,565,477	118,391	19,249,478	22,740,619	634,244,5
Fuel stations .....	42,254,626	1,071,735	4,760,238	6,725,403	366,5
<u>TOTAL CAPITAL</u>					
Average per H.P. of primary power .....	208	197	227	237	
Average per H.P. including auxiliary equipment .....	203	192	206	229	
Average per Kv.A. of dynamo capacity .....	246	256	262	279	
Average per Kv.A. including auxiliary equipment .....	239	254	238	271	
<u>Generation</u>					
Average cost per H.P. (including auxiliary equipment)-					
In all generating stations .....	122	95	130	164	
In hydraulic stations .....	124	142	178	178	
In fuel stations .....	77	91	56	117	

x - Capital invested in one hydraulic station in Saskatchewan included in Manitoba.



Tableau 4 - CAPITAL, 1936

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
9,262,583	x 79,852,046	x 25,182,633	27,394,559	107,454,799	<u>Total Capital</u>
36.36	5.38	1.70	1.85	7.24	Pourcentage du total pour le Canada
4,668,373	47,322,451	12,326,749	12,632,141	58,357,220	Génération
4,281,281	29,479,009	11,504,704	13,489,133	38,559,226	Transmission et distribution
0,312,929	3,050,586	1,351,180	1,273,285	10,538,353	Généralités
3,749,961	46,049,659	12,075,045	22,179,895	105,329,604	<u>Total Capital dans les usines commerciales</u>
7,456,196	34,213,856	5,984,990	10,828,731	57,605,970	Génération
0,458,278	11,109,992	5,256,395	10,335,492	37,317,964	Transmission et distribution
5,835,487	725,811	833,660	1,015,672	10,405,670	Généralités
3,058,356	979,309	1,748,224	100,928	23,247,603	Usines non-génératrices
0,691,605	45,070,350	10,326,821	22,078,967	82,082,001	Usines génératrices
0,657,293	44,721,413	...	18,933,805	81,766,323	Usines hydrauliques
34,312	348,937	10,326,821	3,145,162	315,678	Usines à combustible
5,512,622	33,802,387	13,107,588	5,214,664	2,125,195	<u>Total Capital dans les usines municipales</u>
7,212,177	13,108,595	6,341,759	1,803,410	751,250	Génération
8,823,003	18,369,017	6,248,309	3,153,641	1,241,262	Transmission et distribution
4,477,442	2,324,775	517,520	257,613	132,683	Généralités
2,208,872	5,459,735	1,651,011	2,145,039	1,004,567	Usines non-génératrices
3,303,750	28,342,652	11,456,577	3,069,625	1,120,628	Usines génératrices
0,098,950	27,721,000	...	237,481	1,076,403	Usines hydrauliques
204,800	621,652	11,456,577	2,832,144	44,225	Usines à combustible
2,267,228	6,439,044	3,399,235	2,245,967	24,252,170	<u>Total Capital dans les usines non-génératrices</u>
271,748	397,265	...	20,000	247,433	Génération
925,310	5,171,535	3,139,234	2,181,068	19,981,853	Transmission et distribution
0,070,170	870,244	260,001	44,899	4,022,884	Généralités
995,355	73,413,002	21,783,398	25,148,592	83,202,629	<u>Total Capital dans les usines génératrices</u>
396,625	46,925,186	12,326,749	12,612,141	58,109,787	Génération
355,971	24,307,474	8,365,470	11,308,065	18,577,373	Transmission et distribution
242,759	2,180,342	1,091,179	1,228,386	6,515,469	Généralités
756,243	72,442,413	...	19,171,286	82,842,726	Usines hydrauliques
239,112	970,589	21,783,398	5,977,306	359,903	Usines à combustible
					<u>TOTAL CAPITAL</u>
245	181	176	211	192	Moyenne par H.P. de la machinerie d'énergie primaire
240	169	176	182	176	Moyenne par H.P. y compris machinerie auxiliaire
305	225	208	261	246	Moyenne par Kv.A. de la capacité des dynamos
299	208	208	222	225	Moyenne par Kv.A. y compris machinerie auxiliaire
					<u>Génération</u>
116	100	86	84	95	Moyenne par H.P. y compris machinerie auxiliaire-
118	100	..	110	96	Dans les usines génératrices
118	158	86	44	86	Dans les usines hydrauliques
					Dans les usines à combustible

Capital engagé dans une usine hydraulique de la Saskatchewan inclus sous Manitoba.

Table 5 - REVENUE, 1936

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
Revenue from sale of electric energy .....	135,865,173	299,229	5,216,692	/ 3,355,606	12,277,200
For domestic service .....	38,399,102	145,442	1,457,054	1,068,038	7,723,900
For commercial light .....	22,224,896	82,343	780,968	498,372	6,301,500
For power (small) .....	8,952,364	16,268	331,352	197,578	2,305,000
For power (large) .....	61,514,489	35,342	2,451,464	1,487,722	38,408,100
For street lighting .....	4,774,322	19,834	195,854	103,896	1,199,000
Revenue of Commercial Stations .....	78,882,504	237,140	3,541,539	2,120,967	44,623,100
Non-generating .....	5,519,575	1,211	1,185,405	379,164	106,100
Generating .....	73,362,929	235,929	2,356,134	1,741,803	44,517,000
Hydraulic .....	68,499,686	21,209	503,436	1,310,033	44,501,200
Fuel .....	4,863,243	214,720	1,852,698	431,770	15,700
Revenue of Municipal Stations .....	56,982,669	62,089	1,675,153	1,234,639	1,314,600
Non-generating .....	17,569,583	...	409,116	343,483	525,700
Generating .....	39,413,086	62,089	1,266,037	891,156	788,900
Hydraulic .....	34,535,942	...	1,228,630	529,636	727,900
Fuel .....	4,877,144	62,089	37,407	361,520	61,000
Revenue of non-generating stations .....	23,089,158	1,211	1,594,521	722,647	631,800
Revenue of generating stations .....	112,776,015	298,018	3,622,171	2,632,959	45,305,900
Revenue of hydraulic stations .....	103,035,628	21,209	1,732,066	1,839,669	45,229,200
Revenue of fuel stations .....	9,740,387	276,809	1,890,105	793,290	76,700
Average revenue per H.P. of primary power .....	19.08	49.11	33.00	24.08	13.00
Average revenue per H.P. in main and auxiliary plants..	15.36	48.08	31.00	23.29	13.00
Average revenue per Kv.A. of dynamo capacity .....	22.15	34.09	42.75	28.32	15.00
Average revenue per Kv.A. in main and auxiliary plants..	21.02	33.44	38.84	27.47	15.00
Average revenue per kilowatt hour consumed .....(Cents)	.53	5.19	1.27	.79	...
Average revenue per domestic service customer .....	26.61	33.21	26.61	27.63	19.00
Average revenue per commercial light customer .....	90.66	77.24	82.05	82.36	93.00
Average revenue per small power customer .....	219.73	143.96	164.85	204.11	192.00
Average revenue per large power customer .....	6,251.47	1,104.44	1,843.21	10,403.65	1,638.00
Average revenue per kilowatt hour - domestic and farm service .....(Cents)	2.38	7.10	4.29	4.86	3.00
Average revenue per kilowatt hour - commercial light .....(Cents)	9.11	4.43	9.11	3.43	2.00

/ Affected by power purchased from another province.

x Adjusted for power purchased from Quebec plants on the basis of 88 kw.h. per h.p. per week.

Tableau 5 - RECETTES, 1936

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
6,208,781	7,246,220	4,651,782	4,972,779	12,247,892	<u>Recettes provenant de la vente d'électricité</u>
7,716,636	3,029,140	1,851,794	1,789,422	3,617,603	Pour éclairage domestique
3,112,369	1,328,899	1,262,373	1,378,556	2,479,402	Pour éclairage commercial
3,794,550	323,515	617,057	630,378	736,638	Pour force motrice (petite)
1,545,790	2,312,425	643,240	905,148	4,996,866	Pour force motrice (grosse)
2,039,436	252,241	277,318	269,275	417,383	Pour éclairage des rues
1,482,609	3,617,941	1,688,476	2,371,765	11,597,817	<u>Recettes des usines commerciales</u>
741,900	141,962	140,806	66,391	3,151,718	Non-génératrices
1,740,709	3,475,979	1,547,670	2,305,374	8,446,099	Génératrices
1,730,719	3,412,973	...	1,667,850	8,355,977	Hydrauliques
9,990	63,006	1,547,670	637,524	90,122	A combustible
1,726,172	3,628,279	2,963,306	2,601,014	650,075	<u>Recettes des usines municipales</u>
1,798,539	684,383	617,123	881,048	358,684	Non-génératrices
1,927,633	2,943,896	2,346,183	1,719,966	291,391	Génératrices
1,850,639	2,730,313	...	36,561	256,448	Hydrauliques
76,994	213,583	2,346,183	1,683,405	34,943	A combustible
1,540,439	826,345	757,929	947,439	3,510,402	Recettes des usines non-génératrices
1,668,342	6,419,875	3,893,853	4,025,340	8,737,490	Recettes des usines génératrices
1,581,358	6,143,286	...	1,704,411	8,612,425	Recettes des usines hydrauliques
86,984	276,589	3,893,853	2,320,929	125,065	Recettes des usines à combustible
x 21.52	16.42	32.50	38.34	21.84	Moyenne de recettes par H.P. de machinerie primaire
x 21.19	15.34	32.50	31.23	20.03	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
x 27.09	20.44	38.33	47.34	28.09	Moyenne de recettes par Kv.A. de capacité de dynamos
x 26.64	18.91	38.33	40.28	25.65	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
.71	.46	3.20	2.29	.73	Moyenne de recettes par Kw. heure (cents)
27.94	39.93	39.84	30.02	26.11	Moyenne de recettes par abonnés d'éclairage domestique
91.61	83.91	88.54	76.78	100.09	Moyenne de recettes par abonnés d'éclairage commercial
297.24	123.38	216.59	145.38	235.88	Moyenne de recettes par abonnés pour petite force motrice
1,953.48	880.59	4,836.39	2,891.85	2,811.97	Moyenne de recettes par abonnés pour grosse force motrice
1.61	1.02	5.14	5.34	2.83	Moyenne de recettes par Kw. heure - service domestique et de ferme (cents)
1.93	1.90	3.03	4.87	3.25	Moyenne de recettes par Kw. heure - service commercial (cents)

ecté par énergie achetée d'une autre province.

ité pour achats de courant des usines du Québec sur une base de 88 kw.h. par h.p. par semaine.



Table 6 - EXPENSES, 1936

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>Total Expenses</u> .....	77,939,050	130,121	3,271,763	1,591,411	18,666,343
Per cent of total for Canada .....	100.00	0.17	4.20	2.04	23.95
Salaries and wages .....	23,367,091	62,789	883,228	523,610	5,505,842
Fuel .....	2,303,786	47,016	898,365	163,206	24,900
Taxes .....	8,499,087	18,921	340,227	110,661	4,648,702
Cost of power .....	43,769,086	1,395	1,149,943	793,934	8,486,899
<u>Total for Commercial Stations</u> .....	36,530,527	110,404	2,536,658	864,064	18,117,483
Salaries and wages .....	11,189,138	54,244	571,648	303,242	5,264,755
Fuel .....	1,412,554	35,844	890,608	92,464	3,749
Taxes .....	7,948,216	18,921	336,568	110,091	4,632,777
Cost of power .....	15,980,619	1,395	737,834	358,267	8,216,202
Non-generating stations .....	7,373,993	1,405	1,239,964	549,259	62,454
Generating stations .....	29,156,534	108,999	1,296,694	314,805	18,055,029
Hydraulic stations .....	26,725,243	9,613	190,395	108,337	18,046,361
Fuel stations .....	2,431,291	99,386	1,106,299	206,468	8,668
<u>Total for Municipal Stations</u> .....	41,408,523	19,717	735,105	727,347	548,860
Salaries and wages .....	12,177,953	8,545	311,580	220,368	241,087
Fuel .....	891,232	11,172	7,757	70,742	21,151
Taxes .....	550,871	...	3,659	570	15,925
Cost of power .....	27,788,467	...	412,109	435,667	270,697
Non-generating stations .....	29,175,038	...	505,184	371,808	367,080
Generating stations .....	12,233,485	19,717	229,921	355,539	181,780
Hydraulic stations .....	10,429,821	...	214,460	231,622	147,024
Fuel stations .....	1,803,664	19,717	15,461	123,917	34,756
<u>Total Expenses for Non-generating Stations</u> .....	36,549,031	1,405	1,745,148	921,067	429,534
Salaries and wages .....	7,209,587	...	341,614	226,006	135,482
Fuel .....	54,024	...	49,602	...	...
Taxes .....	901,065	10	222,419	52,685	1,566
Cost of power .....	28,384,355	1,395	1,131,513	642,376	292,483
<u>Total Expenses for Generating Stations</u> .....	41,390,019	128,716	1,526,615	670,344	18,236,809
Salaries and wages .....	16,157,504	62,789	541,614	297,604	5,370,360
Fuel .....	2,249,762	47,016	848,763	163,206	24,900
Taxes .....	7,598,022	18,911	117,808	57,976	4,647,133
Cost of power .....	15,384,731	...	18,430	151,558	8,194,411
Hydraulic stations .....	37,155,064	9,613	404,855	339,959	18,193,381
Fuel stations .....	4,234,955	119,103	1,121,760	330,385	43,422

Tableau 6 - DEPENSES, 1936

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
0,086,113	2,707,116	2,446,554	2,093,192	6,946,437	<u>Total des dépenses</u>
51.43	3.47	3.14	2.69	8.91	Pourcentage du total pour le Canada
0,640,705	1,714,737	830,033	887,501	2,318,646	Salaires et gages
28,287	74,889	748,570	262,313	56,240	Combustible
1,458,196	308,781	126,354	219,901	1,267,344	Taxes
7,958,925	608,709	741,597	723,477	3,304,207	Achat d'énergie électrique
5,710,540	1,090,469	757,399	744,865	6,598,645	<u>Total pour les usines commerciales</u>
4,428,327	628,182	329,407	410,574	2,198,759	Salaires et gages
12,338	13,983	238,823	77,437	47,308	Combustible
1,147,021	221,371	77,669	136,454	1,267,344	Taxes
1,122,854	226,933	111,500	120,400	3,085,234	Achat d'énergie électrique
1,165,352	258,794	102,975	47,881	3,945,909	Usines non-génératrices
1,545,188	831,675	654,424	696,984	2,652,736	Usines génératrices
1,540,185	796,581	...	413,787	2,619,984	Usines hydrauliques
5,003	35,094	654,424	283,197	32,752	Usines à combustible
1,375,573	1,616,647	1,689,155	1,348,327	347,792	<u>Total pour les usines municipales</u>
1,212,378	1,086,555	500,626	476,927	119,887	Salaires et gages
15,949	60,906	509,747	184,876	8,932	Combustible
311,175	87,410	48,685	83,447	...	Taxes
836,071	381,776	630,097	603,077	218,973	Achat d'énergie électrique
763,919	327,490	717,474	840,465	281,618	Usines non-génératrices
611,654	1,289,157	971,681	507,862	66,174	Usines génératrices
587,542	1,187,729	...	10,589	50,855	Usines Hydrauliques
24,112	101,428	971,681	497,273	15,319	Usines à combustible
929,271	586,284	820,449	888,346	4,227,527	<u>Total des dépenses des usines non-génératrices</u>
899,429	222,939	103,010	182,201	1,098,906	Salaires et gages
...	2,913	...	...	1,509	Combustible
145,951	14,428	51,676	62,723	349,596	Taxes
383,883	346,004	665,763	643,422	2,777,516	Achat d'énergie électrique
156,842	2,120,832	1,626,105	1,204,846	2,718,910	<u>Total des dépenses des usines génératrices</u>
741,276	1,491,798	727,023	705,300	1,219,740	Salaires et gages
28,287	71,976	748,570	262,313	54,731	Combustible
12,237	294,353	74,678	157,178	917,748	Taxes
75,042	262,705	75,834	80,055	526,691	Achat d'énergie électrique
27,727	1,984,310	...	424,376	2,670,839	Usines hydrauliques
29,115	136,522	1,626,105	780,470	48,071	Usines à combustible

Table 7 - EMPLOYEES, 1936

	Canada	Prince Edward Islands	Nova Scotia	New Brunswick	Quebec
<u>Total Number of Persons Employed</u> .....	16,087	61	915	495	3,820
Per cent of total for Canada .....	100.00	0.38	5.69	3.08	23.74
Officers, clerks, other salaried employees, etc. ..	6,699	29	279	226	1,108
Employees on wages .....	9,388	32	636	269	2,712
<u>Total Employees in Commercial Stations</u> .....	7,992	52	594	286	3,619
Officers, clerks, other salaried employees, etc. ..	2,710	25	189	116	1,014
Employees on wages .....	5,282	27	405	170	2,605
Non-generating .....	1,185	..	268	135	19
Generating .....	6,807	52	326	151	3,600
Hydraulic .....	6,105	9	180	63	3,595
Fuel .....	702	43	146	88	5
<u>Total Employees in Municipal Stations</u> .....	8,095	9	321	209	201
Officers, clerks, other salaried employees, etc. ..	3,949	4	90	110	94
Employees on wages .....	4,106	5	231	99	107
Non-generating .....	3,961	..	94	71	86
Generating .....	4,134	9	227	138	115
Hydraulic .....	3,530	..	216	82	105
Fuel .....	604	9	11	56	10
<u>Total Employees in Non-generating Stations</u> .....	5,146	..	362	206	105
Officers, clerks, other salaried employees, etc. ..	2,766	..	186	103	54
Employees on wages .....	2,380	..	176	103	51
<u>Total Employees in Generating Stations</u> .....	10,841	61	553	289	3,715
Officers, clerks, other salaried employees, etc. ..	9,981	29	93	123	1,054
Employees on wages .....	9,008	32	460	166	2,661
Hydraulic .....	9,635	9	396	145	3,700
Fuel .....	1,206	52	157	144	15



Tableau 7 - EMPLOYES, 1936

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
6,724	1,299	556	625	1,592	<u>Total du personnel occupé</u>
41.80	8.07	3.46	3.88	9.90	Pourcentage du total pour le Canada
2,975	828	254	325	675	Administrateurs, directeurs, commis et tous employés des bureaux
3,749	471	302	300	917	Ouvriers et journaliers
986	411	244	304	1,496	<u>Personnel des usines commerciales</u>
286	167	124	186	603	Administrateurs, directeurs, commis et tous employés des bureaux
700	244	120	118	893	Ouvriers et journaliers
45	14	12	9	683	Non-génératrices
941	397	232	295	813	Génératrices
936	378	...	152	792	Hydrauliques
5	19	232	143	21	Combustible
5,738	888	312	321	96	<u>Personnel des usines municipales</u>
2,689	661	130	139	72	Administrateurs, directeurs, commis et tous employés des bureaux
3,049	227	182	182	24	Ouvriers et journaliers
3,269	212	55	123	51	Non-génératrices
2,469	676	257	198	45	Génératrices
2,456	625	...	7	39	Hydrauliques
13	51	257	191	6	Combustible
3,314	226	67	132	734	<u>Personnel des usines non-génératrices</u>
1,764	98	38	78	445	Administrateurs, directeurs, commis et tous employés des bureaux
1,550	128	29	54	289	Ouvriers et journaliers
3,410	1,073	489	493	858	<u>Personnel des usines génératrices</u>
1,211	730	216	247	230	Administrateurs, directeurs, commis et tous employés des bureaux
2,199	343	273	246	628	Ouvriers et journaliers
3,392	1,003	...	159	831	Hydrauliques
18	70	489	334	27	Combustible

Table 8 - NUMBER OF CUSTOMERS, 1936

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Number of Customers .....	1,740,793	5,601	66,501	45,860	471,599
Per cent of total for Canada .....	100.00	0.32	3.82	2.63	27.09
Domestic service .....	1,443,059	4,379	54,763	38,660	390,711
Commercial light .....	245,144	1,066	9,518	6,051	67,137
Power (small) .....	40,742	113	2,010	968	11,955
Power (large) .....	9,840	32	133	143	1,153
Street lighting .....	2,008	11	77	38	643
Commercial Stations .....	802,676	4,542	44,270	22,692	435,241
Domestic service .....	650,917	3,601	36,572	18,323	358,414
Commercial light .....	126,070	840	6,364	3,641	64,052
Power (small) .....	20,065	61	1,215	654	11,067
Power (large) .....	4,454	31	77	54	1,092
Street lighting .....	1,170	9	42	20	616
Non-generating .....	175,627	102	34,678	14,069	3,706
Generating .....	627,049	4,440	9,592	8,623	431,535
Hydraulic .....	577,404	722	6,108	474	431,155
Fuel .....	49,645	3,718	3,484	8,149	380
Municipal Stations .....	938,117	1,059	22,231	23,168	36,358
Domestic service .....	792,142	778	18,191	20,337	32,297
Commercial light .....	119,074	226	3,154	2,410	3,085
Power (small) .....	20,677	52	795	314	888
Power (large) .....	5,386	1	56	89	61
Street lighting .....	838	2	35	18	27
Non-generating .....	698,759	...	18,070	13,235	18,682
Generating .....	239,358	1,059	4,161	9,933	17,676
Hydraulic .....	173,339	...	3,333	6,660	16,724
Fuel .....	66,019	1,059	828	3,273	952
Non-generating Stations .....	874,386	102	52,748	27,304	22,388
Domestic service .....	732,088	72	43,565	22,806	19,744
Commercial light .....	119,170	29	7,483	3,879	1,956
Power (small) .....	17,855	...	1,588	513	629
Power (large) .....	4,652	...	69	82	19
Street lighting .....	621	1	43	24	40
Generating Stations .....	866,407	5,499	13,753	18,556	449,211
Hydraulic stations .....	750,743	722	9,441	7,134	447,879
Domestic service .....	625,484	608	7,692	6,475	369,986
Commercial light .....	101,278	111	1,341	535	64,851
Power (small) .....	18,210	...	332	86	11,309
Power (large) .....	4,753	...	51	30	1,132
Street lighting .....	1,018	3	25	8	601
Fuel stations .....	115,664	4,777	4,312	11,422	1,332
Domestic service .....	85,487	3,699	3,506	9,379	981
Commercial light .....	24,696	926	694	1,637	330
Power (small) .....	4,677	113	90	369	17
Power (large) .....	435	32	13	31	2
Street lighting .....	369	7	9	6	2
Average number of domestic service customers per 100 of population .....	13.10	4.76	10.20	8.89	12.62

Tableau 8 - NOMBRE D'USAGERS, 1936

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
739,446 42.48	97,075 5.58	64,008 3.68	82,391 4.73	168,312 9.67	<u>Nombre d'usagers</u> Pourcentage du total pour le Canada
634,052 88,551 12,766 3,530 547	75,858 15,837 2,622 2,626 132	46,478 14,257 2,849 133 291	59,600 17,955 4,336 313 187	138,558 24,772 3,123 1,777 82	Service domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
64,911 54,441 8,947 1,195 263 65	29,497 21,242 6,796 351 1,085 23	23,607 16,432 6,064 909 46 156	27,501 17,729 7,399 2,122 79 172	150,415 124,163 21,967 2,491 1,727 67	<u>Nombre d'usagers des usines commerciales</u> Service domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
4,076 60,835 60,570 265	6,624 22,873 21,645 1,228	2,754 20,853 ... 20,853	1,613 25,888 15,708 10,180	108,005 42,410 41,022 1,388	Non-génératrices Génératrices Hydrauliques Combustible
74,535 79,611 79,604 11,571 3,267 482	67,578 54,616 9,041 2,271 1,541 109	40,401 30,046 8,193 1,940 87 135	54,890 41,871 10,556 2,214 234 15	17,897 14,395 2,805 632 50 15	<u>Nombre d'usagers des usines municipales</u> Service domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
11,392 3,143 2,062 1,081	14,158 53,420 49,666 3,754	14,663 25,738 ... 25,738	25,483 29,407 749 28,658	13,076 4,821 4,145 676	Non-génératrices Génératrices Hydrauliques Combustible
5,468 4,326 7,336 0,769 2,731 306	20,782 17,087 2,870 601 124 100	17,417 12,908 3,533 877 44 55	27,096 21,267 4,768 1,003 45 13	121,081 100,313 17,316 1,875 1,538 39	<u>Nombre d'usagers des usines non-génératrices</u> Service domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
3,978 2,632 3,587 1,051 1,961 796 237	76,293 71,311 55,159 11,887 1,779 2,476 10	46,591 ... ... ... ... ... ...	55,295 16,457 10,291 4,501 1,532 33 100	47,231 45,167 36,686 7,001 1,211 235 34	<u>Nombre d'usagers des usines génératrices</u> <u>Usines hydrauliques</u> Service domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
1,346 1,139 164 36 3 4	4,982 3,612 1,080 242 26 22	46,591 33,570 10,724 1,972 89 236	38,838 28,042 8,686 1,801 235 74	2,064 1,559 455 37 4 9	<u>Usines à combustible</u> Service domestique Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
7.18	10.67	4.99	7.72	18.38	Moyenne de consommateurs d'éclairage électrique par 100 habitants



Table 9 - POLE LINE MILEAGE, 1936

		Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Total Pole Line Mileage .....	59,436	209	2,693	2,129	12,221
Per cent of total for Canada .....	100.00	0.35	4.53	3.58	20.56
Miles of steel towers .....	4,561	...	21	214	1,091
Miles of steel poles .....	277	...	...	...	217
Miles of wooden poles .....	52,119	208	2,663	1,914	10,301
Miles of concrete poles .....	602	...	...	...	...
Miles of underground and submarine cables .....	1,877	1	9	1	612
<u>Total Pole Line Mileage in Commercial Stations .....</u>	<u>27,271</u>	<u>187</u>	<u>1,520</u>	<u>633</u>	<u>11,732</u>
Steam .....	4,399	10	656	247	283
Hydraulic .....	22,872	177	864	386	11,449
Fuel .....	20,406	54	662	165	11,438
	2,466	123	202	221	11
<u>Total Pole Line Mileage in Municipal Stations .....</u>	<u>32,165</u>	<u>22</u>	<u>1,173</u>	<u>1,496</u>	<u>489</u>
Steam .....	9,936	...	450	204	163
Hydraulic .....	22,227	22	723	1,292	326
Fuel .....	19,299	...	700	712	306
	2,926	22	23	580	20
<u>Total Pole Line Mileage in Non-generating Stations ...</u>	<u>14,337</u>	<u>10</u>	<u>1,106</u>	<u>451</u>	<u>446</u>
<u>Total Pole Line Mileage in Generating Stations .....</u>	<u>45,099</u>	<u>199</u>	<u>1,587</u>	<u>1,678</u>	<u>11,775</u>
Hydraulic .....	39,705	54	1,362	877	11,744
Fuel .....	5,394	145	225	801	31

Table 10 - AUXILIARY PLANT EQUIPMENT, 1936

Total Primary Power .....	H.P.	200,621	165	14,284	4,725	38,547
Per cent of total for Canada .....		100.00	0.08	7.12	2.36	19.21
Steam reciprocating engines .....	No.	34	1	8	3	3
Total capacity .....	H.P.	15,349	75	3,671	1,125	2,250
Steam turbines .....	No.	50	...	6	4	8
Total capacity .....	H.P.	175,967	...	10,028	3,600	36,224
Gas and oil engines .....	No.	49	2	5	...	3
Total capacity .....	H.P.	9,305	90	585	...	73
<u>Total Secondary Power .....</u>	<u>Kv.A.</u>	<u>172,327</u>	<u>48</u>	<u>12,284</u>	<u>3,668</u>	<u>34,478</u>
<u>Commercial Stations</u>						
Total Primary Power .....	H.P.	133,895	165	10,783	4,725	27,823
Steam reciprocating engines .....	No.	22	1	6	3	3
Total capacity .....	H.P.	10,651	75	3,248	1,125	2,250
Steam turbines .....	No.	38	...	3	4	6
Total capacity .....	H.P.	116,445	...	7,370	3,600	25,500
Gas and oil engines .....	No.	33	2	1	...	3
Total capacity .....	H.P.	6,799	90	165	...	73
<u>Total Secondary Power .....</u>	<u>Kv.A.</u>	<u>114,130</u>	<u>48</u>	<u>9,553</u>	<u>3,668</u>	<u>24,478</u>
<u>Municipal Stations</u>						
Total Primary Power .....	H.P.	41,122	...	3,501	...	10,724
Steam reciprocating engines .....	No.	12	...	2	...	...
Total capacity .....	H.P.	4,698	...	423	...	...
Steam turbines .....	No.	12	...	3	...	...
Total capacity .....	H.P.	59,522	...	2,658	...	10,724
Gas and oil engines .....	No.	16	...	4	...	...
Total capacity .....	H.P.	2,506	...	420	...	...
<u>Total Secondary Power .....</u>	<u>Kv.A.</u>	<u>58,197</u>	<u>...</u>	<u>2,731</u>	<u>...</u>	<u>10,000</u>

Tableau 9 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1936

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
25,966 43.69	3,505 5.90	3,592 6.04	3,910 6.58	5,211 8.77	<u>Longueur (en milles) des lignes sur poteaux</u> <u>Pourcentage du total pour tout le Canada</u>
2,450 60	744 ...	... ...	2 ...	39 ...	Milles de pylones d'acier
21,770	2,734	3,567	3,856	5,106	Milles de poteaux d'acier
602	...	...	...	...	Milles de poteaux de bois
1,084	27	25	52	66	Milles de poteaux de ciment
					Milles de câbles souterrains et sous-marins
2,506 210 2,296 2,288 8	1,276 212 1,064 989 75	1,609 648 961 ... 961	3,134 39 3,095 2,275 820	4,674 2,094 2,580 2,535 45	<u>Total (en milles) pour le service des usines commerciales</u> Non-génératrices Génératrices Hydrauliques A combustible
23,460 6,728 16,732 16,705 27	2,229 1,441 788 732 56	1,983 184 1,799 ... 1,799	776 376 400 17 383	537 392 145 127 18	<u>Total (en milles) pour le service des usines municipales</u> Non-génératrices Génératrices Hydrauliques A combustible
6,938	1,653	832	415	2,486	<u>Total (en milles) pour le service des usines non-génératrices</u>
19,028 18,993 35	1,852 1,721 131	2,760 ... 2,760	3,495 2,292 1,203	2,725 2,662 63	<u>Total (en milles) pour le service des usines génératrices</u> Hydrauliques A combustible

Tableau 10 - TOTAL, FORCE MOTRICE PRIMAIRE, 1936

40,496 20.18	31,090 15.50	...	21,203 10.57	50,111 24.93	<u>Total, force motrice primaire</u> ..... H.P. Pourcentage du total pour tout le Canada
5 1,700	1 1,750	...	8 3,503	5 1,275	Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
5 36,300	7 28,490	...	5 16,250	15 45,075	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P.
7 2,496	7 850	...	9 1,450	16 3,761	Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
34,578	28,711	...	18,422	40,138	<u>Total, force motrice secondaire</u> ..... Kv.A.
					<u>Usines Commerciales</u>
8,900 ... ...	12,000 ... ...	...	20,963 8 3,503	48,536 1 450	<u>Total, force motrice primaire</u> ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
3 6,800	3 12,000	...	5 16,250	14 44,925	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P.
5 2,100	... ...	...	7 1,210	15 3,161	Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
8,013	11,250	...	18,237	38,883	<u>Total, force motrice secondaire</u> ..... Kv.A.
					<u>Usines Municipales</u>
31,596 5 1,700	19,090 1 1,750	...	240 ... ...	1,575 4 825	<u>Total, force motrice primaire</u> ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
2 29,500	4 16,490	...	... ...	1 150	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P.
2 396	7 850	...	2 240	1 600	Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
16,565	17,461	...	185	1,255	<u>Total, force motrice secondaire</u> ..... Kv.A.



Table 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1936

		Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>Total Primary Power</u> .....	H.P.	7,319,893	6,231	155,241	144,097	3,393,961
Per cent of total for Canada .....		100.00	0.08	2.12	1.97	46.3
Water wheels and turbines .....	No.	809	7	54	17	26
Total capacity .....	H.P.	6,810,660	336	84,994	105,985	3,352,771
Steam reciprocating engines .....	No.	86	1	9	7	1
Total capacity .....	H.P.	27,738	75	4,171	4,125	2,25
Steam turbines .....	No.	110	3	17	10	1
Total capacity .....	H.P.	441,996	5,000	64,853	33,680	36,22
Gas and oil engines .....	No.	389	6	19	5	1
Total capacity .....	H.P.	39,499	820	1,223	307	2,71
<u>Total Dynamo Capacity</u> .....	Kv.A.	6,198,326	4,717	134,322	122,158	3,027,68
Per cent of total for Canada .....		100.00	0.08	2.17	1.97	48.8
Dynamos, A.C. ....	No.	1,186	13	93	33	27
Total capacity .....	Kv.A.	6,191,650	4,709	133,972	120,755	3,027,15
Dynamos, D.C. ....	No.	188	1	6	7	1
Total capacity .....	Kw.	6,676	8	350	1,403	53
<u>Commercial Stations</u>						
<u>Total Primary Power</u> .....	H.P.	5,146,863	5,501	80,571	114,882	3,351,38
Water wheels and turbines .....	No.	543	7	18	11	23
Total capacity .....	H.P.	4,866,471	336	14,244	93,150	3,323,44
Steam reciprocating engines .....	No.	50	1	7	7	1
Total capacity .....	H.P.	17,380	75	3,748	4,125	2,25
Steam turbines .....	No.	68	3	14	7	1
Total capacity .....	H.P.	239,855	5,000	62,195	17,300	25,5
Gas and oil engines .....	No.	286	2	8	5	1
Total capacity .....	H.P.	23,157	90	384	307	19
<u>Total Dynamo Capacity</u> .....	Kv.A.	4,454,999	4,102	72,829	97,835	2,992,11
Dynamos, A.C. ....	No.	760	9	41	24	2
Total capacity .....	Kv.A.	4,449,896	4,094	72,479	96,432	2,991,6
Dynamos, D.C. ....	No.	167	1	6	7	1
Total capacity .....	Kw.	5,103	8	350	1,403	5
<u>Municipal Stations</u>						
<u>Total Primary Power</u> .....	H.P.	2,173,030	730	74,670	29,215	42,5
Water wheels and turbines .....	No.	266	...	36	6	1
Total capacity .....	H.P.	1,944,189	...	70,750	12,835	29,3
Steam reciprocating engines .....	No.	36	...	2	...	1
Total capacity .....	H.P.	10,358	...	423	...	1
Steam turbines .....	No.	42	...	3	3	1
Total capacity .....	H.P.	202,141	...	2,658	16,380	10,7
Gas and oil engines .....	No.	103	4	11	...	1
Total capacity .....	H.P.	16,342	730	839	...	2,5
<u>Total Dynamo Capacity</u> .....	Kv.A.	1,743,327	615	61,493	24,323	35,5
Dynamos, A.C. ....	No.	426	4	52	9	1
Total capacity .....	Kv.A.	1,741,754	615	61,493	24,323	35,5
Dynamos, D.C. ....	No.	21	...	...	...	1
Total capacity .....	Kw.	1,573	...	...	...	1



Tableau 11 - OUTILLAGE TOTAL, Y COMPRIS CELUI DE LA FORCE MOTRICE PRIMAIRE, 1936

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
242,997 30.64	472,446 6.45	143,112 1.96	150,922 2.06	610,884 8.35	<u>Total, force motrice primaire</u> ..... H.P. Pourcentage du total pour le Canada
339	39	...	18	75	Turbines et roues hydrauliques ..... Nomb.
201,136	437,800	...	69,920	557,713	Capacité totale ..... H.P.
15	9	2	29	11	Machines à vapeur, à mouvement alternatif ..... Nomb.
2,245	2,870	1,150	8,308	2,544	Capacité totale ..... H.P.
5	8	25	18	16	Turbines à vapeur ..... Nomb.
36,300	28,890	123,174	68,300	45,575	Capacité totale ..... H.P.
13	37	189	71	38	Moteurs à gaz et à pétrole ..... Nomb.
3,316	2,886	18,788	4,394	5,052	Capacité totale ..... H.P.
803,858	383,263	121,362	123,455	477,503	<u>Capacité totale des dynamos</u> ..... Kv.A.
29.10	6.18	1.96	1.99	7.70	Pourcentage du total pour le Canada
363	85	115	80	128	Dynamos, C.A. .... Nomb.
803,788	383,016	120,241	120,744	477,268	Capacité totale ..... Kv.A.
4	8	97	49	12	Dynamos, C.D. .... Nomb.
70	247	1,121	2,711	235	Capacité totale ..... Kw.
<u>Usines Commerciales</u>					
519,712	320,628	55,314	99,937	598,934	<u>Total, force motrice primaire</u> ..... H.P.
169	21	...	16	66	Turbines et roues hydrauliques ..... Nomb.
510,597	307,800	...	68,960	547,943	Capacité totale ..... H.P.
4	1	...	22	5	Machines à vapeur, à mouvement alternatif ..... Nomb.
165	30	...	5,323	1,664	Capacité totale ..... H.P.
3	3	10	7	15	Turbines à vapeur ..... Nomb.
6,800	12,000	44,085	21,550	45,425	Capacité totale ..... H.P.
6	16	141	68	34	Moteurs à gaz et à pétrole ..... Nomb.
2,150	798	11,229	4,104	3,902	Capacité totale ..... H.P.
440,614	253,990	45,585	79,006	468,894	<u>Capacité totale des dynamos</u> ..... Kv.A.
175	37	64	59	108	Dynamos, C.A. .... Nomb.
440,579	253,943	44,652	77,445	468,659	Capacité totale ..... Kv.A.
3	3	84	47	12	Dynamos, C.D. .... Nomb.
35	47	933	1,561	235	Capacité totale ..... Kw.
<u>Usines Municipales</u>					
723,285	151,818	87,798	50,985	11,950	<u>Total, force motrice primaire</u> ..... H.P.
170	18	...	2	9	Turbines et roues hydrauliques ..... Nomb.
690,539	130,000	...	960	9,770	Capacité totale ..... H.P.
11	8	2	7	6	Machines à vapeur, à mouvement alternatif ..... Nomb.
2,080	2,840	1,150	2,985	880	Capacité totale ..... H.P.
2	5	15	11	1	Turbines à vapeur ..... Nomb.
29,500	16,890	79,089	46,750	150	Capacité totale ..... H.P.
7	21	48	3	4	Moteurs à gaz et à pétrole ..... Nomb.
1,166	2,088	7,559	290	1,150	Capacité totale ..... H.P.
363,244	129,273	75,777	44,449	8,609	<u>Capacité totale des dynamos</u> ..... Kv.A.
188	48	51	21	20	Dynamos, C.A. .... Nomb.
363,209	129,073	75,589	43,299	8,609	Capacité totale ..... Kv.A.
1	5	13	2	...	Dynamos, C.D. .... Nomb.
35	200	188	1,150	...	Capacité totale ..... Kw.

Table 12 - MAIN PLANT EQUIPMENT, 1936

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>Total Primary Power</u> ..... H.P.	7,119,272	6,066	140,957	139,372	3,355,416
Per cent of total for Canada .....	100.00	0.08	1.98	1.96	47.13
Water wheels and turbines ..... No.	809	7	54	17	260
Total capacity ..... H.P.	6,810,660	336	84,994	105,985	3,352,776
Steam reciprocating engines ..... No.	52	...	1	4	...
Total capacity ..... H.P.	12,389	...	500	3,000	...
Steam turbines ..... No.	60	3	11	6	...
Total capacity ..... H.P.	266,029	5,000	54,825	30,080	...
Gas and oil engines ..... No.	340	4	14	5	8
Total capacity ..... H.P.	30,194	730	638	307	2,640
<u>Total Dynamo Capacity</u> ..... Kv.A.	6,025,999	4,669	122,038	118,490	2,993,210
Per cent of total for Canada .....	100.00	0.08	2.03	1.97	49.67
Dynamos, A.C. .... No.	1,063	12	75	26	264
Total capacity ..... Kv.A.	6,020,956	4,661	121,988	117,320	2,992,679
Dynamos, D.C. .... No.	184	1	5	6	4
Total capacity ..... Kw.	5,043	8	50	1,170	531
<u>Commercial Stations</u>					
<u>Total Primary Power</u> ..... H.P.	5,012,968	5,336	69,788	110,157	3,323,561
Per cent of total for Canada .....	100.00	0.11	1.39	2.20	66.30
Water wheels and turbines ..... No.	543	7	16	11	235
Total capacity ..... H.P.	4,866,471	336	14,244	93,150	3,323,441
Steam reciprocating engines ..... No.	28	...	1	4	...
Total capacity ..... H.P.	6,729	...	500	3,000	...
Steam turbines ..... No.	30	3	11	3	...
Total capacity ..... H.P.	123,410	5,000	54,825	13,700	...
Gas and oil engines ..... No.	253	...	7	5	3
Total capacity ..... H.P.	16,358	...	219	307	120
<u>Total Dynamo Capacity</u> ..... Kv.A.	4,340,869	4,094	63,276	94,167	2,967,666
Per cent of total for Canada .....	100.00	0.09	1.46	2.17	68.37
Dynamos, A.C. .... No.	677	8	32	17	233
Total capacity ..... Kv.A.	4,337,399	4,046	63,226	92,997	2,967,135
Dynamos, D.C. .... No.	163	1	5	6	4
Total capacity ..... Kw.	3,470	2	50	1,170	531
<u>Municipal Stations</u>					
<u>Total Primary Power</u> ..... H.P.	2,106,304	730	71,169	29,215	31,855
Per cent of total for Canada .....	100.00	0.03	3.38	1.39	1.51
Water wheels and turbines ..... No.	266	...	36	6	25
Total capacity ..... H.P.	1,944,189	...	70,750	12,835	29,335
Steam reciprocating engines ..... No.	24	...	...	...	...
Total capacity ..... H.P.	5,660	...	...	...	...
Steam turbines ..... No.	30	...	...	3	...
Total capacity ..... H.P.	142,619	...	...	16,380	...
Gas and oil engines ..... No.	87	4	7	...	5
Total capacity ..... H.P.	13,836	730	419	...	2,520
<u>Total Dynamo Capacity</u> ..... Kv.A.	1,685,130	615	58,762	24,323	25,544
Per cent of total for Canada .....	100.00	0.04	3.49	1.44	1.51
Dynamos, A.C. .... No.	388	4	43	9	31
Total capacity ..... Kv.A.	1,683,557	615	58,762	24,323	25,544
Dynamos, D.C. .... No.	21	...	...	...	...
Total capacity ..... Kw.	...	...	...	...	...
<u>Hydraulic Stations</u>					
<u>Total Dynamo Capacity</u> ..... Kv.A.	5,762,030	304	71,334	91,463	2,991,011
Per cent of total for Canada .....	100.00	0.01	1.23	1.59	51.91
Dynamos, A.C. .... No.	792	5	54	15	256
Total capacity ..... Kv.A.	5,760,971	296	71,334	91,038	2,990,480
Dynamos, D.C. .... No.	11	1	...	2	4
Total capacity ..... Kw.	...	8	...	425	531
<u>Fuel Stations</u>					
<u>Total Dynamo Capacity</u> ..... Kv.A.	263,969	4,565	50,704	27,027	2,195
Per cent of total for Canada .....	100.00	1.65	19.21	10.24	0.83
Dynamos, A.C. .... No.	271	7	21	11	8
Total capacity ..... Kv.A.	259,985	4,365	50,654	26,282	2,195
Dynamos, D.C. .... No.	173	...	5	4	...
Total capacity ..... Kw.	3,984	...	50	745	...

x - Capacity of one hydraulic station in Saskatchewan included in Manitoba.



Tableau 12 - OUTILLAGE DES USINES PRINCIPALES, 1936

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
202,501	x 441,356	x 143,112	129,719	560,773	<u>Total, force motrice primaire</u> ..... H.P.
30.94	6.20	2.01	1.82	7.88	Pourcentage du total pour le Canada
339	39	...	18	75	Roues hydrauliques et turbines ..... Nomb.
201,136	437,800	...	69,920	557,713	Capacité totale ..... H.P.
10	8	2	21	6	Machines à vapeur, à mouvement alternatif .... Nomb.
545	1,120	1,150	4,805	1,269	Capacité totale ..... H.P.
...	1	25	13	1	Turbines à vapeur ..... Nomb.
...	400	123,174	52,050	500	Capacité totale ..... H.P.
6	30	189	62	22	Moteurs à gaz et à pétrole ..... Nomb.
820	2,036	18,788	2,944	1,291	Capacité totale ..... H.P.
69,280	354,552	121,362	105,033	437,365	<u>Capacité des dynamos</u> ..... Kv.A.
29.36	5.88	2.01	1.74	7.26	Pourcentage du total pour le Canada
347	70	115	60	94	Dynamos, C.A. .... Nomb.
69,210	354,305	120,241	103,422	437,130	Capacité totale ..... Kv.A.
4	8	97	47	12	Dynamos, C.D. .... Nomb.
70	247	1,121	1,611	235	Capacité totale ..... Kw.
					<u>Usines Commerciales</u>
10,812	308,628	55,314	78,974	550,398	<u>Total, force motrice primaire</u> ..... H.P.
10.19	6.16	1.10	1.57	10.98	Pourcentage du total pour le Canada
169	21	...	16	66	Turbines et roues hydrauliques ..... Nomb.
10,597	307,800	...	68,960	547,943	Capacité totale ..... H.P.
4	1	...	14	4	Machines à vapeur, à mouvement alternatif .... Nomb.
165	30	...	1,820	1,214	Capacité totale ..... H.P.
...	...	10	2	1	Turbines à vapeur ..... Nomb.
...	...	44,085	5,300	500	Capacité totale ..... H.P.
1	16	141	61	19	Moteurs à gaz et à pétrole ..... Nomb.
50	798	11,229	2,894	741	Capacité totale ..... H.P.
2,601	242,740	45,585	60,769	430,011	<u>Capacité des dynamos</u> ..... Kv.A.
9.96	5.59	1.05	1.40	9.91	Pourcentage du total pour le Canada
168	34	64	41	80	Dynamos, C.A. .... Nomb.
2,566	242,693	44,652	60,308	429,776	Capacité totale ..... Kv.A.
3	3	84	45	12	Dynamos, C.D. .... Nomb.
35	47	933	461	235	Capacité totale ..... Kw.
					<u>Usines Municipales</u>
1,689	132,728	87,798	50,745	10,375	<u>Total, force motrice primaire</u> ..... H.P.
80.32	6.30	4.17	2.41	0.49	Pourcentage du total pour le Canada
170	18	...	2	9	Turbines et roues hydrauliques ..... Nomb.
0,539	130,000	...	960	9,770	Capacité totale ..... H.P.
6	7	2	7	2	Machines à vapeur, à mouvement alternatif .... Nomb.
380	1,090	1,150	2,985	55	Capacité totale ..... H.P.
...	1	15	11	...	Turbines à vapeur ..... Nomb.
...	400	79,089	46,750	...	Capacité totale ..... H.P.
5	14	48	1	3	Moteurs à gaz et à pétrole ..... Nomb.
770	1,238	7,559	50	550	Capacité totale ..... H.P.
5,679	111,812	75,777	44,264	7,354	<u>Capacité des dynamos</u> ..... Kv.A.
79.32	6.63	4.50	2.63	0.44	Pourcentage du total pour le Canada
179	36	51	19	14	Dynamos, C.A. .... Nomb.
5,644	111,612	75,589	43,114	7,354	Capacité totale ..... Kv.A.
1	5	13	2	...	Dynamos, C.D. .... Nomb.
35	200	188	1,150	...	Capacité totale ..... Kw.
					<u>Usines Hydrauliques</u>
2,253	351,600	...	53,200	434,865	<u>Capacité totale des dynamos</u> ..... Kv.A.
10.69	6.10	...	0.92	7.55	Pourcentage du total pour le Canada
333	39	...	14	76	Dynamos, C.A. .... Nomb.
2,228	351,600	...	53,200	434,795	Capacité totale ..... Kv.A.
2	...	...	...	2	Dynamos, C.D. .... Nomb.
25	...	...	...	70	Capacité totale ..... Kw.
					<u>Usines à combustible</u>
1,027	2,952	121,362	51,833	2,500	<u>Capacité totale des dynamos</u> ..... Kv.A.
0.39	1.12	45.97	19.64	0.95	Pourcentage du total pour le Canada
14	31	115	46	18	Dynamos, C.A. .... Nomb.
982	2,705	120,241	50,222	2,335	Capacité totale ..... Kv.A.
2	8	97	47	10	Dynamos, C.D. .... Nomb.
45	247	1,121	1,611	165	Capacité totale ..... Kw.

ement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.



Table 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1936

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<u>Primary Power</u> ..... H.P.	7,119,272	6,066	140,957	139,372	3,355,416	2,202,500
<u>Water wheels and turbines</u> ..... No.	809	7	54	17	260	33
Total H.P.	6,810,660	336	84,994	105,985	3,352,776	2,201,130
Under 500 H.P. .... No.	149	7	22	3	28	6
Total H.P.	29,695	336	5,174	935	4,957	12,800
500 - 2,000 H.P. .... No.	214	...	17	3	64	11
Total H.P.	237,219	...	19,630	2,550	67,369	134,300
2,000 - 5,000 H.P. .... No.	127	...	11	6	33	5
Total H.P.	379,321	...	36,890	17,500	91,750	169,230
5,000 - 10,000 H.P. .... No.	101	...	4	1	33	2
Total H.P.	674,425	...	23,300	5,000	233,400	192,100
10,000 - 15,000 H.P. .... No.	83	...	...	...	28	4
Total H.P.	972,100	...	...	...	301,900	508,200
15,000 - 25,000 H.P. .... No.	45	...	...	4	13	1
Total H.P.	829,000	...	...	80,000	256,500	182,500
25,000 H.P. and up ..... No.	90	...	...	...	61	1
Total H.P.	3,688,900	...	...	...	2,396,900	1,002,000
<u>Steam reciprocating engines</u> ..... No.	52	...	1	4	...	1
Total H.P.	12,389	...	500	3,000	...	54
Under 500 H.P. .... No.	43	...	...	1	...	1
Total H.P.	5,129	...	...	100	...	54
500 H.P. and up ..... No.	9	...	1	3	...	...
Total H.P.	7,260	...	500	2,900	...	...
<u>Steam turbines</u> ..... No.	60	3	11	6	...	...
Total H.P.	266,029	5,000	54,825	30,080	...	...
Under 500 H.P. .... No.	2	...	...	...	...	...
Total H.P.	667	...	...	...	...	...
500 - 2,000 H.P. .... No.	12	2	...	1	...	...
Total H.P.	13,403	2,500	...	700	...	...
2,000 - 5,000 H.P. .... No.	28	1	6	3	...	...
Total H.P.	82,280	2,500	16,100	11,000	...	...
5,000 - 10,000 H.P. and up ..... No.	18	...	5	2	...	...
Total H.P.	169,679	...	38,725	18,380	...	...
<u>Gas and oil engines</u> ..... No.	340	4	14	5	8	8
Total H.P.	30,194	730	638	307	2,640	8
<u>Secondary Power</u>						
<u>Dynamos, A.C. and D.C.</u> ..... No.	1,247	13	80	32	268	3
Total Kv.A.	6,025,999	4,669	122,038	118,490	2,993,210	1,769,200
<u>Dynamos, A.C.</u> ..... No.	1,063	12	75	26	264	3
Total Kv.A.	6,020,956	4,661	121,988	117,320	2,992,679	1,769,200
Under 50 Kv.A. .... No.	84	3	6	...	6	2
Total Kv.A.	2,425	99	207	...	184	...
50 - 200 Kv.A. .... No.	154	5	13	4	13	...
Total Kv.A.	16,770	512	1,273	410	1,368	4,100
200 - 500 Kv.A. .... No.	129	1	15	1	24	...
Total Kv.A.	39,791	300	4,688	375	8,072	12,000
500 - 1,000 Kv.A. .... No.	133	1	8	4	38	...
Total Kv.A.	96,683	625	6,070	2,750	27,555	48,600
1,000 - 5,000 Kv.A. .... No.	257	2	26	11	52	1
Total Kv.A.	585,790	3,125	65,075	28,475	111,195	208,900
5,000 - 10,000 Kv.A. .... No.	113	...	7	2	25	...
Total Kv.A.	785,297	...	44,675	15,310	166,020	354,500
10,000 - 15,000 Kv.A. .... No.	69	...	...	...	32	...
Total Kv.A.	749,825	...	...	...	333,660	247,000
15,000 - 25,000 Kv.A. .... No.	50	...	...	4	16	...
Total Kv.A.	931,500	...	...	70,000	315,250	154,000
25,000 Kv.A. and up ..... No.	74	...	...	...	58	...
Total Kv.A.	2,812,875	...	...	...	2,029,375	739,500
<u>Dynamos, D.C.</u> ..... No.	184	1	5	6	4	...
Total Kw.	5,043	8	50	1,170	531	...
Under 50 Kw. .... No.	175	1	5	2	3	...
Total Kw.	2,118	8	50	20	31	...
50 - 200 Kw. .... No.	4	...	...	2	...	...
Total Kw.	325	...	...	200	...	...
200 - 500 Kw. .... No.	2	...	...	1	...	...
Total Kw.	700	...	...	300	...	...
500 Kw. and up ..... No.	3	...	...	1	1	...
Total Kw.	1,900	...	...	650	500	...

Tableau 13 - OUTILLAGE CLASSIFIÉ DES USINES PRINCIPALES, 1936

Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal	
41,356	143,112	129,719	560,773	5,012,968	2,106,304	Force motrice primaire ..... H.P.
39	...	18	75	543	266	Turbines et roues hydrauliques ..... Nomb.
37,800	...	69,920	557,713	4,866,471	1,944,189	Total H.P.
...	...	10	18	101	48	Moins de 500 H.P. .... Nomb.
...	...	1,920	3,572	17,361	12,334	Total H.P.
...	...	...	11	122	92	500 - 2,000 H.P. .... Nomb.
...	...	...	13,370	129,714	107,505	Total H.P.
4	...	2	13	89	38	2,000 - 5,000 H.P. .... Nomb.
2,800	...	8,000	43,146	269,271	110,050	Total H.P.
21	...	4	9	69	32	5,000 - 10,000 H.P. .... Nomb.
0,000	...	24,000	66,625	472,325	202,100	Total H.P.
5	...	...	8	57	26	10,000 - 15,000 H.P. .... Nomb.
7,000	...	...	95,000	644,400	327,700	Total H.P.
3	...	2	12	34	11	15,000 - 25,000 H.P. .... Nomb.
0,000	...	36,000	214,000	646,500	182,500	Total H.P.
6	...	...	4	71	19	25,000 et plus H.P. .... Nomb.
8,000	...	...	122,000	2,686,900	1,002,000	Total H.P.
8	2	21	6	28	24	Machines à vapeur, à mouvement alternatif.. Nomb.
1,120	1,150	4,805	1,269	6,729	5,660	Total H.P.
8	1	18	5	23	20	Moins de 500 H.P. .... Nomb.
1,120	400	2,495	469	2,529	2,600	Total H.P.
...	1	3	1	5	4	500 H.P. et plus .... Nomb.
...	750	2,310	800	4,200	3,060	Total H.P.
1	25	13	1	30	30	Turbines à vapeur ..... Nomb.
400	123,174	52,050	500	123,410	142,619	Total H.P.
1	1	...	...	...	2	Moins de 500 H.P. .... Nomb.
400	267	...	...	...	667	Total H.P.
...	6	2	1	7	5	500 - 2,000 H.P. .... Nomb.
...	7,703	2,000	300	8,233	5,170	Total H.P.
...	10	8	...	14	14	2,000 - 5,000 H.P. .... Nomb.
...	28,330	24,350	...	38,186	44,094	Total H.P.
...	8	3	...	9	9	5,000 - 10,000 H.P. .... Nomb.
...	86,874	25,700	...	76,991	92,688	Total H.P.
30	189	62	22	253	87	Moteurs à gaz et à pétrole ..... Nomb.
1,036	18,788	2,944	1,291	16,358	13,836	Total H.P.
						Force motrice secondaire
78	212	107	106	840	407	Dynamos, C.A. et C.D. .... Nomb.
552	121,362	105,033	437,365	4,340,869	1,685,130	Total Kv.A.
70	115	60	94	677	386	Dynamos, C.A. .... Nomb.
305	120,241	103,422	437,130	4,337,399	1,683,557	Total Kv.A.
14	27	10	10	56	28	Moins de 50 Kv.A. .... Nomb.
331	881	249	251	1,631	794	Total Kv.A.
13	36	18	16	97	57	50 - 200 Kv.A. .... Nomb.
179	4,166	2,085	1,648	10,254	6,516	Total Kv.A.
4	24	10	11	66	63	200 - 500 Kv.A. .... Nomb.
195	7,128	2,875	3,112	19,963	19,828	Total Kv.A.
...	5	3	8	75	58	500 - 1,000 Kv.A. .... Nomb.
...	3,261	2,088	5,644	54,421	42,262	Total Kv.A.
14	16	14	18	162	95	1,000 - 5,000 Kv.A. .... Nomb.
350	36,055	42,375	44,150	372,655	213,135	Total Kv.A.
11	4	2	14	69	44	5,000 - 10,000 Kv.A. .... Nomb.
750	25,000	11,250	97,700	475,125	310,172	Total Kv.A.
5	2	1	6	52	17	10,000 - 15,000 Kv.A. .... Nomb.
000	25,000	12,500	75,625	571,225	178,600	Total Kv.A.
9	1	2	10	41	9	15,000 - 25,000 Kv.A. .... Nomb.
500	18,750	30,000	165,000	758,750	172,750	Total Kv.A.
...	...	...	1	59	15	25,000 Kv.A. et plus .... Nomb.
...	...	...	44,000	2,073,375	739,500	Total Kv.A.
8	97	47	12	163	21	Dynamos, C.D. .... Nomb.
247	1,121	1,611	235	3,470	1,573	Total Kw.
6	97	45	12	158	17	Moins de 50 Kw. .... Nomb.
122	1,121	461	235	1,820	298	Total Kw.
2	...	...	...	2	2	50 - 200 Kw. .... Nomb.
125	...	...	...	200	125	Total Kw.
...	...	1	...	1	1	200 - 500 Kw. .... Nomb.
...	...	400	...	300	400	Total Kw.
...	...	1	...	2	1	500 Kw. et plus .... Nomb.
...	...	750	...	1,150	750	Total Kw.



Table 14 - ELECTRIC ENERGY GENERATED, 1936

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>ALL STATIONS</u>					
Total Kilowatt Hours Generated ..... (thousands)	25,402,282	5,769	412,294	425,849	13,019,900
Per cent of total for Canada .....	100.00	0.02	1.62	1.68	51.2
Kilowatt hours generated by non-generating stations ..... (thousands)	1,579	...	1,316	...	...
Kilowatt hours generated by generating stns... (thousands)	25,400,703	5,769	410,978	425,849	13,019,900
Kv.A. capacity of generating stations .....	6,164,106	4,717	122,313	118,490	3,017,600
Ratio of output to maximum capacity ..... p.c.	47.4	14.0	38.6	42.3	49.0
Average kilowatt hours per Kv.A. ....	4,121	1,223	3,360	3,594	4,310
<u>GENERATING STATIONS</u>					
<u>Commercial Stations</u>					
<u>Total</u>					
Kilowatt hours generated ..... (thousands)	18,514,271	4,874	187,984	376,281	12,964,100
Kv.A. capacity .....	4,439,314	4,102	63,426	94,167	2,992,100
Ratio of output to maximum capacity ..... p.c.	47.6	13.6	33.8	45.6	49.0
Average kilowatt hours per Kv.A. ....	4,171	1,188	2,964	3,996	4,330
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	18,272,517	376	32,560	353,998	12,964,000
Kv.A. capacity .....	4,315,332	352	13,051	81,200	2,992,000
Ratio of output to maximum capacity ..... p.c.	48.4	12.2	28.5	49.8	49.0
Average kilowatt hours per Kv.A. ....	4,234	1,068	2,495	4,360	4,330
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	241,754	4,498	155,424	22,283	17,000
Kv.A. capacity .....	123,982	3,750	50,375	12,967	9,000
Ratio of output to maximum capacity ..... p.c.	22.3	13.7	35.2	19.6	14.0
Average kilowatt hours per Kv.A. ....	1,950	1,199	3,085	1,718	1,220
<u>Municipal Stations</u>					
<u>Total</u>					
Kilowatt hours generated ..... (thousands)	6,886,432	895	222,994	49,568	55,700
Kv.A. capacity .....	1,724,792	615	58,887	24,323	25,500
Ratio of output to maximum capacity ..... p.c.	46.7	16.6	43.8	28.9	24.0
Average kilowatt hours per Kv.A. ....	3,993	1,455	3,787	2,038	2,180
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	6,668,718	...	222,506	22,342	52,100
Kv.A. capacity .....	1,584,805	...	58,558	10,263	23,400
Ratio of output to maximum capacity ..... p.c.	49.3	...	43.9	24.9	25.0
Average kilowatt hours per Kv.A. ....	4,208	...	3,800	2,177	2,220
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	217,714	895	488	27,226	3,600
Kv.A. capacity .....	139,987	615	329	14,060	2,100
Ratio of output to maximum capacity ..... p.c.	18.2	16.6	16.9	29.6	19.0
Average kilowatt hours per Kv.A. ....	1,555	1,455	1,483	1,936	1,770
<u>TOTAL HYDRAULIC STATIONS</u>					
Kilowatt hours generated ..... (thousands)	24,941,235	376	255,066	376,340	13,016,100
Kv.A. capacity .....	5,900,137	352	71,609	91,463	3,015,400
Ratio of output to maximum capacity ..... p.c.	48.6	12.2	41.1	47.0	49.0
Average kilowatt hours per Kv.A. ....	4,227	1,068	3,562	4,115	4,330
Kilowatt hours generated by water power ..... (thousands)	24,932,705	343	255,063	376,340	13,016,100
Kilowatt hours generated by auxiliary plants ... (thousands)	8,530	33	3	...	...
<u>TOTAL FUEL STATIONS</u>					
Kilowatt hours generated ..... (thousands)	459,468	5,393	155,912	49,509	3,700
Kv.A. capacity .....	263,969	4,365	50,704	27,027	2,100
Ratio of output to maximum capacity ..... p.c.	20.1	14.1	35.1	24.1	19.0
Average kilowatt hours per Kv.A. ....	1,741	1,236	3,075	1,832	1,600
<u>CONSUMPTION OF ELECTRIC ENERGY (THOUSANDS OF KILOWATT HOURS)</u>					
Total kilowatt hours generated .....	25,402,282	5,769	412,294	425,849	13,019,900
Kilowatt hours imported from the United States .....	765	...	...	67	1
Kilowatt hours imported from other provinces .....	...	...	...	5,469	...
Kilowatt hours exported to the United States .....	1,573,980	...	...	15,782	3
Kilowatt hours exported to other provinces .....	...	...	...	...	1,881,500
Kilowatt hours for consumption in Canada .....	23,829,067	5,769	412,294	415,603	11,138,000
Domestic service .....	1,887,116	2,035	29,212	22,049	241,700
Commercial light .....	871,488	1,280	15,276	14,431	213,700
Small power .....	482,953	222	11,128	5,559	93,400
Large power .....	17,863,992	1,130	309,456	351,955	9,702,400
Street lighting .....	189,876	265	4,555	3,182	38,000
Free service (other than street lighting) .....	24,021	...	221	384	15,500
Losses .....	2,509,621	837	42,446	18,043	833,100

/ Excludes exports to other provinces and/or to the United States.



Tableau 14 - ENERGIE ELECTRIQUE GENEREE, 1936

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
927,044 31.21	1,574,898 6.20	145,219 0.57	216,770 0.85	1,674,531 6.59	<u>TOUTES USINES</u> Total kw. heure générés ..... (milliers) Pourcentage du total pour le Canada
...	179	...	...	84	Kilowatt-heure générés par les usines non-génératrices ..... (milliers)
927,044	1,574,719	145,219	216,770	1,674,447	Kilowatt-heure générés par les usines génératrices (milliers)
801,099	379,552	121,362	123,270	475,615	Capacité des usines génératrices en Kv.A.
51.3	47.4	13.7	20.1	40.2	Proportion de la production à la capacité maximum .. p.c.
4,401	4,149	1,197	1,758	3,521	Moyenne de kilowatt-heure par Kv.A.
					<u>USINES GENERATRICES</u> <u>Usines Commerciales</u> Total
555,290	1,086,285	43,978	135,543	1,659,856	Kilowatt-heure générés ..... (milliers)
439,145	253,990	45,585	79,006	467,749	Capacité en Kv.A.
53.4	48.8	11.0	19.6	40.5	Proportion de la production à la capacité maximum .... p.c.
4,680	4,277	965	1,716	3,549	Moyenne des kilowatt-heure par Kv.A.
555,172	1,085,625	...	123,096	1,657,632	<u>Usines Hydrauliques</u> Kilowatt-heure générés ..... (milliers)
438,990	253,350	...	70,587	465,752	Capacité en Kv.A.
53.4	48.9	...	19.9	40.0	Proportion de production à la capacité maximum ..... p.c.
4,682	4,285	...	1,744	3,559	Moyenne de kilowatt-heure par Kv.A.
118	660	43,978	12,447	2,224	<u>Usines à combustible</u> Kilowatt-heure générés ..... (milliers)
155	640	45,585	8,419	1,997	Capacité en Kv.A.
8.7	11.8	11.0	16.9	12.7	Proportion de production à la capacité maximum ..... p.c.
761	1,031	965	1,478	1,114	Moyenne de kilowatt-heure par Kv.A.
					<u>Usines Municipales</u> Total
371,754	488,434	101,241	81,227	14,591	Kilowatt-heure générés ..... (milliers)
361,954	125,562	75,777	44,264	7,866	Capacité en Kv.A.
50.7	44.4	15.3	20.9	21.2	Proportion de production à la capacité maximum ..... p.c.
4,311	3,890	1,336	1,835	1,855	Moyenne de kilowatt-heure par Kv.A.
370,587	485,362	...	1,760	14,046	<u>Usines hydrauliques</u> Kilowatt-heure générés ..... (milliers)
361,082	123,250	...	850	7,363	Capacité en Kv.A.
50.7	45.0	...	23.6	21.8	Proportion de production à la capacité maximum ..... p.c.
4,313	3,938	...	2,071	1,908	Moyenne de kilowatt-heure par Kv.A.
1,167	3,072	101,241	79,467	545	<u>Usines à combustible</u> Kilowatt-heure générés ..... (milliers)
872	2,312	75,777	43,414	503	Capacité en Kv.A.
15.3	15.2	15.3	20.9	12.4	Proportion de production à la capacité maximum ..... p.c.
1,338	1,329	1,336	1,830	1,083	Moyenne de kilowatt-heure par Kv.A.
					<u>TOUTES USINES HYDRAULIQUES</u>
25,759	1,570,987	...	124,856	1,671,678	Kilowatt-heure générés ..... (milliers)
20,072	376,600	...	71,437	473,115	Capacité en Kv.A.
51.4	47.6	...	19.9	40.3	Proportion de production à la capacité maximum ..... p.c.
4,403	4,172	...	1,748	3,533	Moyenne de kilowatt-heure par Kv.A.
24,129	1,570,801	...	124,387	1,665,470	Kw.-heures générés par force motrice hydraulique .. (milliers)
1,630	186	...	469	6,208	Kw.-heure générés par les usines auxiliaires .... (milliers)
					<u>TOUTES USINES A COMBUSTIBLE</u>
1,285	3,732	145,219	91,914	2,769	Kilowatt-heure générés ..... (milliers)
1,027	2,952	121,362	51,833	2,500	Capacité en Kv.A.
14.3	14.4	13.7	20.2	12.6	Proportion de production à la capacité maximum ..... p.c.
1,251	1,264	1,197	1,773	1,108	Moyenne de kilowatt-heure par Kv.A.
					<u>CONSOMMATION D'ENERGIE ELECTRIQUE (EN MILLIERS DE KW.H.)</u>
27,044	1,574,898	145,219	216,770	1,674,531	Total de kilowatt-heure générés
...	178	...	405	...	Kilowatt-heure importés des Etats-Unis
6,066	...	...	2,390	...	Kilowatt-heure importés d'autres provinces
7,135	146	...	...	527	Kilowatt-heure exportés aux Etats-Unis
...	...	...	...	2,390	Kilowatt-heure exportés à d'autres provinces
5,975	1,574,930	145,219	219,565	1,671,614	Kilowatt-heure consommés au Canada
8,598	296,110	36,044	33,481	127,788	Service domestique
0,939	69,916	20,950	28,310	86,680	Eclairage commercial
2,332	54,664	18,828	29,748	40,049	Petite force motrice
5,064	961,889	43,883	82,076	1,136,011	Grosse force motrice
2,532	18,032	7,665	7,874	17,674	Eclairage des rues
1,003	75	48	1,037	5,722	Service gratuit (autre que l'éclairage des rues)
3,507	174,144	17,801	37,039	257,690	Pertes

et les exportations par d'autres provinces et/ou aux Etats-Unis.

Table 15 - FUEL, 1936

Provinces	Bituminous Coal Charbon bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
Canada .....	344,490	1,213,772	3,605	16,159
Prince Edward Island .....	5,941	33,727	...	...
Nova Scotia .....	123,166	471,365	...	...
New Brunswick .....	42,187	151,185	2,299	7,957
Quebec .....	...	...	...	...
Ontario .....	40	160	1,306	8,202
Manitoba .....	3,699	14,427	...	...
Saskatchewan .....	123,187	475,745	...	...
Alberta .....	37,708	42,580	...	...
British Columbia and Yukon .....	8,562	24,583	...	...

	Fuel Oil Huile combustible	
	Quantity Quantité	Value Valeur
	Gal.	\$
Canada .....	5,042,409	406,217
Prince Edward Island .....	104,192	12,421
Nova Scotia .....	105,896	11,017
New Brunswick .....	36,433	4,064
Quebec .....	294,689	24,731
Ontario .....	223,200	19,397
Manitoba .....	244,368	34,539
Saskatchewan .....	3,469,161	239,147
Alberta .....	194,925	30,269
British Columbia and Yukon .....	369,545	30,632

Notes: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu. ft.

Tableau 15 - COMBUSTIBLE, 1936

Lignite Coal Charbon Lignite Canadian - Canadien		Gasolene Gazoline		Kerosene Kérosène	
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
125,531	194,271	21,188	5,735	9,456	2,249
...	...	135	41	135	27
...	...	...	...	...	...
...	...	...	...	...	...
...	...	698	169	...	...
...	...	...	...	12	3
528	1,922	50	18	...	...
22,955	29,955	5,682	1,773	7,390	1,888
102,048	162,394	14,339	3,636	1,919	331
...	...	284	98	...	...

Wood Bois		Natural Gas Gaz naturel		Other Fuel Autre Combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
Cords Cordes	\$	1,000 cu. ft. 1,000 pds. cu.	\$	\$	\$
9,548	27,056	912,410	17,977	420,350	2,303,786
200	800	...	...	...	47,016
20	100	...	...	415,883	898,365
...	...	...	...	...	163,206
...	...	...	...	...	24,900
150	525	...	...	...	28,287
6,423	20,415	...	...	3,568	74,889
24	62	...	...	...	748,570
2,722	5,126	912,410	17,977	...	262,313
9	28	...	...	899	56,240

Note: Tonne = 2,000 livres  
 Gallon = Impérial  
 Corde = 128 pds. cu.





# **BUREAU FEDERAL DE LA STATISTIQUE** **BRANCHE DES TRANSPORTS ET DES UTILITES PUBLIQUES**

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## INDUSTRIE DES USINES CENTRALES ELECTRIQUES, 1936.

Les usines centrales électriques sont, pour les fins du recensement, des établissements appartenant à des compagnies, des municipalités ou des individus qui vendent ou distribuent de l'énergie, soit générée directement par l'établissement soit achetée pour revente. D'après le mode de propriété, elles sont réparties en deux classes: (a) commerciales, si elles sont exploitées par des compagnies ou des particuliers; (b) municipales, si elles le sont par la municipalité, le gouvernement provincial ou l'Etat fédéral. D'après leur mode de fonctionnement, elles se divisent en (a) usines génératrices, lorsqu'elles génèrent l'énergie qu'elles vendent (même si elles achètent aussi du courant pour compléter leur propre production), et en (b) non génératrices, si elles achètent tout l'énergie qu'elles vendent. Le dernier groupe comprend 24 usines disposant d'un outillage générateur auxiliaire classifié comme outillage générateur exclusivement. Dix-sept de ces établissements achètent toute leur énergie, et la production des 7 autres ne dépasse guère 1,579,289 kw.h., ce qui explique l'item plutôt surprenant du tableau 14 sur la production des usines non génératrices.

Les statistiques portent sur des établissements qui exploitent principalement des entreprises minières, des pulperies et papeteries, etc., qui vendent leur surplus d'énergie électrique. Pour ces derniers établissements, l'on a tenu un état aussi distinct que possible de la statistique relative à l'industrie même des centrales électriques.

Les centrales peuvent préparer leurs rapports d'après leur année financière qui ne correspond pas toujours avec l'année civile. Ainsi, la production inscrite dans leur rapport annuel n'est pas nécessairement celle des douze mois de l'année civile, conformément à leurs rapports mensuels. Toutefois les diverses données du rapport annuel correspondant à celles d'autres périodes et les rapports annuels peuvent être comparés entre eux.

La production des centrales électriques progresse assez bien jusqu'en mai 1930, pour diminuer ensuite les deux années suivantes; mais à partir du milieu de 1932 jusqu'à la fin de 1937 les progrès sont assez constants et rapides; le nombre-indice de la production mensuelle atteint son maximum de 240 en juin 1937, la moyenne de 1926 étant prise comme base et représentée par 100. Le minimum a été atteint en juillet 1932, avec 123 et le maximum précédent en mai 1930, avec 156.

La production totale de l'année s'établit à 25,402,282,000 kw.h.; ce n'est cependant que 47.4 p.c. de la capacité fixe de l'outillage. Il est impossible, naturellement, de la porter à 100 p.c., car les charges varient, mais en 1928 elle s'est établie à 51.2 p.c. La proportion de 1936 représente une augmentation de 2.6 points sur celle de 1935; il convient de l'attribuer à plusieurs causes, dont l'augmentation de la consommation minière et manufacturière, surtout dans les usines de pulpe et papier, ainsi que l'augmentation dans la consommation commerciale et la consommation ménagère. L'énergie absorbée pendant les heures creuses, ou l'énergie secondaire, a été produite en plus grande abondance pour la consommation des bouilloires électriques; en 1936, cette production représente 6,942,841,000 kw.h. ou 27 p.c. de la production totale. En 1935, elle était de 6,312,387,000 kw.h. ou 27 p.c. de la production totale. Ainsi,

L'augmentation dans la production totale est de 2,119,249,000 kw.h. ou 8.1 p.c., et celle de l'énergie secondaire de 630,454,000 kw.h. ou 10 p.c. Les exportations d'excédents aux États-Unis augmentant de 128,868,365 kw.h., et les exportations totales passent de 1,359,020,541 kw.h. en 1935 à 1,573,980,242 en 1936, soit un relèvement de 214,959,701 kw.h., ce qui avec la faible quantité importée laisse un excédent de 16,656,226,000 kw.h. pour d'autres usages au Canada, dans le tenu des pertes de lignes et de transformateurs. C'est 276,245,000 kw.h. ou 8.2 p.c. de plus que la consommation de pouvoir ferme en 1935. Les pulperies et papeteries sont le groupe industriel qui consomme le plus d'énergie des centrales électriques, soit 5,636,108,000 kw.h. pour les bouilloires, et 4,473,530,000 kw.h. pour la force motrice, l'éclairage, etc., et 10 p.c. de la production totale. Les usines ont aussi produit 1,258,327,000 kw.h. pour elles-mêmes. Cette industrie, qui a très rapidement augmenté sa production de pulpe et de papier et de dérivés de ces produits, a joué un rôle de premier plan dans les progrès des centrales électriques.

La consommation de l'éclairage ménager (éclairage des maisons) et de divers autres usages domestiques continue d'augmenter; elle passe de 1,769,846,000 kw.h. en 1935 à 1,897,116,000 kw.h. en 1936, soit une augmentation de 6.6 p.c.

L'électricité n'est exportée du Canada que sur permis du Service d'inspection de l'électricité et du gaz, du ministère du Commerce, et le service a juridiction sur les droits d'exportation, imposés depuis le 1er avril 1925. Au cours de l'année fiscale terminée le 31 mars 1936, ces droits d'exportation s'élèvent à \$389,965, contre \$305,710 l'année précédente. Le taux est de trois centièmes d'un cent par kw.h. d'énergie exportée, sauf quelques exceptions. Le tableau qui suit donne la quantité d'énergie produite pour exportation au cours de l'année civile 1936, et les quantités exportées, la différence entre les deux item représentant les pertes de transmission. Les données ont été compilées des rapports annuels du directeur du Service d'inspection de l'électricité et du gaz.

WATT-HEURES PRODUITS POUR EXPORTATIONS ET EXPORTÉS AUX ÉTATS-UNIS, ANNÉE CIVILE 1936.

Compagnie	Kw.h. produits pour exportation	Kw.h. exportés
Hydro Electric Power Commission of Ontario .....	377,046,500	372,415,114
Hydro Electric Power Commission of Ontario (surplus) .....	304,826,400	299,406,823
Cedar Rapids Mfg. and Power Co., Ltd. ....	437,191,144	476,789,253
Canadian Niagara Power Co., Ltd. ....	391,377,800	350,025,172
Canadian Niagara Power Co., Ltd. (surplus) .....	34,706,000	34,706,000
Western Power Company of Canada Ltd. ....	-	-
Ontario and Minnesota Power Co., Ltd. ....	23,535,200	23,535,200
Maine and New Brunswick Electric Power Co. ....	14,675,311	14,072,901
British Columbia Electric Ry. Co., Ltd. ....	211,180	183,727
Northport Power and Light Co. ....	289,246	289,246
Maritime Electric Company Ltd. ....	1,708,860	1,708,860
Southern Canada Power Co. ....	390,286	390,286
Northern British Columbia Power Co. ....	53,660	53,660
Fraser Companies Ltd. ....	4,140,890	4,120,800
Detroit and Windsor Subway Co. ....	257,300	257,300
Manitoba Power Commission ....	146,700	146,700
Total .....	1,650,556,477	1,578,109,242
Kw.h. produits pour exportation et exportés par les usines centrales électriques seulement ...	1,546,415,587	1,573,980,242



Sur une production globale de 25,402,282,000 kw.h., 24,932,705,000 ou plus de 98 p.c. sont générés par la force hydraulique, et les autres 459,468,000 kw.h., par des usines utilisant exclusivement des moteurs thermiques. Les aménagements auxiliaires des stations hydrauliques et non génératrices produisent 10,109,000 kw.h. La capacité des aménagements électriques au Canada, en 1936, telle qu'elle est établie par le Bureau Fédéral de l'hydraulique et de l'énergie électrique, est de 7,945,590 h.p., ce qui représente environ 18 p.c. de toutes les forces hydrauliques captables dans les conditions actuelles. Le tableau suivant donne, pour le Canada, les forces hydrauliques ou captées ou susceptibles de l'être.

FORCES HYDRAULIQUES, CAPTEES ET POTENTIELLES AU CANADA

Province	Forces disponibles par 24 heures à 80 p.c. d'efficiencie		Turbines installées 31 décembre	
	Au cours ordinaire minimum des eaux	Au cours ordinaire de six mois	1 9 3 6	1 9 3 7
(1)	(2) H.P.	(3) H.P.	(4) H.P.	(5) H.P.
du Prince-Edouard .....	3,000	5,300	2,439	2,439
Nouvelle-Ecosse .....	20,800	128,300	120,667	123,437
Nouveau-Brunswick .....	68,600	169,100	133,681	133,681
Québec .....	8,459,000	13,064,000	3,883,320	3,999,686
Ontario .....	5,330,000	6,940,000	2,561,905	2,577,380
Manitoba .....	3,309,000	5,344,500	392,825	405,325
Alberta .....	542,000	1,082,000	42,035	61,035
Saskatchewan .....	390,000	1,049,500	71,597	71,597
Colombie Britannique .....	1,931,000	5,103,500	718,922	719,972
Yukon et T.-Nord-Ouest .....	294,000	731,000	18,199	18,199
CANADA .....	20,347,400	33,617,200	7,945,590	8,112,751

Les chiffres des colonnes 2 et 3 sont basés seulement sur les rapides, les chutes et les sites de développement hydrauliques dont la différence de niveau ou la tête d'eau possible est connue de manière définitive ou est établie d'une manière approximative. Il y a d'un océan à l'autre plusieurs sites potentiels d'une capacité plus ou moins grande qui n'ont pas encore été étudiés et qui augmenteraient ces totaux.

Avec la construction de bassins d'emménagement et autres travaux régularisant l'écoulement des eaux il est encore possible d'augmenter ces chiffres potentiels. Il est d'habitude, et c'est ce qui se fait dans la plupart des cas, d'installer un outillage dont la capacité dépasse considérablement le débit théorique continu d'une chute et sur cette base il est estimé que la capacité maximum des pouvoirs d'eau aménagés au Canada est de 43,700,000 h.p.

Le tableau suivant donne la production provinciale plus les importations moins les exportations, le montant net montrant la consommation dans chaque province y compris les pertes en lignes; les livraisons aux bouilloires électriques dans chaque province y paraissent séparément. Le tableau 14 analyse de nouveau la consommation d'énergie électrique.

CONSUMMATION D'ENERGIE ELECTRIQUE AU CANADA (Y COMPRIS LES PERTES DE LIGNES)  
(Milliers de kilowatt-heures)

Province	Pouvoir secondaire livré aux bouilloires électriques	Autres usages et pertes de lignes	T o t a l		Augmentation	
			1 9 3 6	1 9 3 5	1936 sur 1935	
					Kw.Hrs.	P.C.
Ile du Prince-Edouard	-	5,769	5,769	5,127	642	12.52
Nouvelle-Ecosse .....	-	412,294	412,294	389,144	23,150	5.95
Nouveau-Brunswick ....	47,357	368,246	415,603	381,252	34,351	9.01
Québec .....	5,325,970	5,812,128	11,138,098	10,362,342	775,756	7.49
Ontario .....	1,130,139	7,115,836	8,245,975	7,569,933	676,042	8.93
Manitoba .....	434,130	1,140,800	1,574,930	1,342,271	232,659	17.33
Saskatchewan .....	-	145,219	145,219	138,479	6,740	4.87
Alberta .....	-	219,565	219,565	210,144	9,421	4.48
Colombie Britannique et Yukon .....	5,245	1,666,369	1,671,614	1,525,976	145,638	9.54
CANADA .....	6,942,841	16,886,226	23,829,067	21,924,668	1,904,399	8.69

TABLEAU 1 - RESUME COMPARATIF, 1927-1936

En 1936, le nombre d'usines hydrauliques diminue de quatre et le nombre d'usines thermiques diminue d'une. Le capital est en augmentation constante, étant en 1936, de 71 p.c. plus élevé qu'en 1927 et de 1.6 p.c. ou \$23,295,481 plus élevé qu'en 1935. En 1936, les recettes augmentent de \$8,687,219 ou de 6.8 p.c., et les quatre item de dépenses, gages, énergie achetée, combustible et taxes accusent une diminution de \$1,686,084 en 1935. Les lignes sur poteaux augmentent de 1,834 milles et le nombre d'usagers, de 46,090. Depuis 1927, on a ajouté 300,547 usagers pour service ménager et la production d'électricité a presque doublé. La capacité génératrice de cette industrie a également doublé depuis 1927; elle était de 6,025,99 kw.h. à la fin de 1936.

TABLEAU 2 - SERVICE DOMESTIQUE, 1930-1936

Ce tableau, qui est un nouveau tableau de ce rapport, montre le nombre d'usagers, la consommation, le revenu et les moyennes calculées d'après ces item pour le service domestique (y compris le service des fermes) de 1930 à 1936; les données connues ne permettent pas de pousser plus loin une vue rétrospective. Le nombre d'usagers de toutes les provinces augmente de 1930 à 1936; le pourcentage varie de 1.5 p.c. en Saskatchewan à 28.2 p.c. en Nouvelle-Ecosse. La consommation totale augmente aussi dans toutes les provinces; la Nouvelle-Ecosse vient encore en tête avec une augmentation de 83.4 p.c. Toutes les provinces à l'exception du Québec et de la Saskatchewan accusent un revenu plus fort provenant du service domestique; ces deux provinces enregistrent des augmentations en 1936 sur 1935. La consommation annuelle moyenne par usager varie grandement; le Manitoba vient en tête avec une moyenne en 1936 de 3,903 kw.h. par usager; l'Ile du Prince-Edouard a la plus petite consommation (465 kw.h.). Les chargements sont relativement faibles dans les factures annuelles moyennes de chaque province même lorsque la consommation accuse une assez bonne augmentation; les factures de la Nouvelle-Ecosse, du Nouveau-Brunswick, de l'Ontario et de la Colombie Britannique sont demeurées remarquablement semblables durant ces sept années. Les services domestiques sont traités de nouveau à la fin de ce rapport.

TABLEAU 3 - USINES GENERATRICES

Au commencement du rapport se trouve la définition de l'usine centrale électrique, telle qu'elle est adoptée pour les fins du recensement. Des organisations exploitent, dans différentes municipalités, plusieurs systèmes non reliés entre eux par une ligne de transmission; ailleurs, une même usine ou des usines reliées entre elles desservent plus d'une municipalité. Les organisations qui font rapport sont considérées d'après le rapport qu'elles



présentent, c'est-à-dire que s'il y a un rapport séparé pour chacune des compagnies subsidiaires chacune de ces compagnies est comptée; par contre, si l'organisation présente un rapport commun pour toutes les subsidiaires, ces compagnies sont considérées comme une seule. La grande diversité de contrôle ne permet guère d'en agir autrement. Dans le tableau, les usines génératrices sont des établissements individuels, considérés indépendamment du propriétaire ou de la localité. Dans certains cas la même compagnie exploite deux établissements ou plus, les uns tout voisins, les autres très éloignés. Au cours de l'année les usines génératrices ont augmenté d'une unité dans la province de Québec et de deux dans l'Alberta; elles ont diminué d'une unité dans la Nouvelle-Ecosse, le Nouveau-Brunswick, le Manitoba et la Colombie Britannique, de deux unités dans la Saskatchewan et l'Île du Prince-Édouard, soit une diminution totale de 5 usines. L'usine de l'Ottawa Valley Power Company, située sur la rive québécoise des chutes Chats dans la rivière Ottawa, dont la puissance est de 112,000 h.p. et de 94,000 kVA, n'a pas produit en 1936 et conséquemment toutes les données relatives à cette usine ont été exclues de ces statistiques dans ces tableaux. Le capital-outillage et toutes les autres statistiques seront inclus de nouveau en 1937 lorsque l'usine aura repris ses opérations.

TABEAU 4 - CAPITAL

Le capital engagé dans l'industrie est classifié sous quatre rubriques: capital de génération, capital de transmission et de distribution, et capital général. Le "capital de génération" comprend le capital immobilisé par les centrales, les sites, les barrages, les conduites d'amenée, les bassins d'emmagasinement et de régularisation, les réservoirs d'équilibre, etc., et aussi l'outillage des centrales, moins les transformateurs survolteurs et tout autre outillage de transmission. Le "capital de transmission et de distribution" comprend les items suivants: pylônes de transmission et de distribution, poteaux, fils, câbles, conduites, droits de passage, usines réceptrices, sites, tableaux de distribution et leurs transformateurs survolteurs ainsi que ceux des centrales, transformateurs, compteurs, etc. Le "capital général" comprend les placements dans les bureaux, les sites de bureaux, l'aménagement des bureaux, le matériel et les fournitures, les espèces en caisse, les comptes d'exploitation et les billets à recevoir. Le total représente le capital employé dans l'industrie. Le capital est total, le 31 décembre ou au terme de l'année financière, de chaque station exploitée, sans comprendre les immobilisations de capital des organisations nouvelles encore inexploitées, mais comprenant les dépenses encourues par des organisations en exploitation en vue d'installations futures. Les moyennes de capital total par unité d'énergie servent mieux à indiquer les différentes classes de stations et de services que le prix de revient d'installations semblables. Il en est de même, quoique à un degré moindre, du capital de génération par unité d'énergie.

TABEAU 5 - REVENU

Les centrales électriques doivent répartir leurs clients, leur consommation et leur revenu sous les rubriques suivantes: (a) service des fermes, (b) service ménager, y compris l'éclairage et tous les autres usages domestiques, (c) éclairage commercial, (d) force motrice pour petit consommateur, 50 kVA ou moins, (e) force motrice de plus de 50 kVA, (f) ventes aux compagnies distributrices, (g) éclairage des rues et courant distribué sans frais aux édifices publics, etc. Le revenu est l'encaisse brute moins le prix de revient de l'énergie, ou revenu reçu du consommateur, sauf lorsqu'une station d'une province achète du courant d'une station d'une autre province; dans ce cas, le prix de revient de l'énergie ainsi achetée n'est pas déduit dans le calcul des données provinciales, mais il l'est dans celui des données fédérales. Cette distinction n'existe pas dans les rapports antérieurs à 1932; c'est pourquoi le revenu de l'Ontario, du Nouveau-Brunswick et de l'Alberta, provinces qui achètent du courant des autres provinces, se trouve plus bas que de raison. Le revenu moyen par kw.h. subit l'effet de maints facteurs; il n'indique pas nécessairement le coût relatif de services similaires. La moyenne pour service ménager et éclairage commercial porte sur des services plus ou moins identiques, mais même là, la source d'énergie, la charge d'énergie, le marché de l'excédent de charge et du surplus de production, le prix de revient de la génération, de la transmission et de la distribution deviennent autant de facteurs qui influent sur les taux. A la fin du rapport l'on s'étend davantage sur les données du service ménager. Comme il faut s'y attendre, les usines de la province de Québec, avec leurs ventes énormes aux usines de pulpe et papier, montrent un revenu proportionnellement plus faible du service ménager que toutes autres stations, bien qu'en dollars il soit plus élevé que partout ailleurs, sauf en Ontario. Dans le calcul du revenu moyen par kw.h. pour toutes fins, il importe d'inclure les pertes de lignes; mais dans le service ménager, le service des fermes et l'éclairage commercial ces pertes ne sont pas comprises; dans ces divers services la consommation est calculée d'après les compteurs des consommateurs. Le revenu moyen par kw.h. consommé dans chaque province correspond au revenu reçu du consommateur ultime de la province plus le revenu reçu de l'énergie exportée de la province, divisé par le nombre de kw.h. ainsi vendus, pertes de toutes lignes comprises. Le revenu moyen par kw.h. de service ménager est affecté par la consommation par usager et les quantités relatives servant

✓ Voir rapport de 1933 (page 5), les effets de cette omission.



à l'éclairage, à la cuisson et au chauffage de l'eau là où les taux varient avec les services. Dans la plupart des municipalités où la consommation augmente, le consommateur paie moins, en moyenne, par kw.h. De même lorsque le tarif uniforme s'applique au chauffe-eau, la moyenne du prix de revient par kw.h., pour toutes fins ménagères, s'en trouve réduite, et à mesure qu'augmente le nombre des chauffe-eau à tarif uniforme, la moyenne diminue jusqu'à parfois disparaître par suite de l'augmentation des taux ailleurs, pour la municipalité ou la province. Pour toutes fins ménagères, le prix moyen du kw.h. s'établit à 2.08c., contre une moyenne de 5.03c aux Etats-Unis.

Le revenu moyen par h.p. et par kVA est affecté par les classes de service et leur importance relative dans chaque province. Les usines du Québec vendent de grandes quantités d'énergie aux distributeurs ontariens. Le revenu de gros de cette énergie est attribué aux usines de l'Ontario. Dans la computation des moyennes pour les usines de l'Ontario, les capacités d'outillage données dans les tableaux 12 et 13 sont augmentées: un h.p. pour chaque 4,277 kw.h. importés des usines du Québec et un kVA pour chaque 6,136 kw.h. importés. Ce n'est qu'une estimation de l'outillage qui est basée sur les contrats de la Commission de l'énergie hydroélectrique de l'Ontario avec des compagnies du Québec qui comptent 88 heures par semaine pour chaque h.p. acheté. Il est assez probable que cette production soit un peu trop élevée pour tout le pouvoir importé du Québec et c'est pourquoi les diviseurs sont trop petits et les revenus moyens trop élevés. Il ne semble pas que les erreurs soient considérables et les moyennes ajustées sont plus comparables aux moyennes des autres provinces que les moyennes non ajustées qui paraissent dans les rapports précédents. Les importations du Nouveau-Brunswick et de l'Alberta sont relativement si petites que leur effet sur les moyennes sont négligeables.

TABLEAU 6 - DEFENSES

Les données sur ce point couvrent quatre rubriques: (a) les salaires et gages, (b) le combustible, (c) les taxes et (d) le prix de revient du courant. Ce dernier item constitue une dépense entre les établissements et pourrait être omis de l'état des dépenses de toute l'industrie. Il indique cependant les achats d'énergie par différent groupe d'usines. Les "salaires et gages" passent de \$22,519,993 en 1935 à \$23,367,091 en 1936, soit une augmentation de 3.8 p.c. Toutes les provinces, sauf la Nouvelle-Ecosse, montrent des bordereaux de paye plus considérables. Les dépenses de "combustible" ont aussi augmenté de \$2,054,876 à \$2,303,786. Les "taxes" sont les plus élevées de la dernière décade: \$8,499,087 contre \$7,524,026 en 1935. Les usines commerciales en ont payé la majeure partie, soit \$7,948,216 ou 94 p.c. Plus de la moitié des taxes versées par les usines municipales l'ont été par des usines ontariennes. Le prix de revient de l'énergie comprend et les montants versés par les municipalités qui s'approvisionnent chez les commissions provinciales et les frais d'échange d'énergie entre les stations génératrices et les stations non génératrices.

TABLEAU 7 - EMPLOYÉS

Les usines de toutes les provinces accusent une augmentation, et l'augmentation nette s'établit à 745 employés. Le tableau suivant donne une idée des heures de travail des employés à gages de l'industrie. Le tiers environ des employés travaillant 48 heures par semaine, et environ les deux tiers moins de 48 heures par semaine.

Employés à gages, mois d'emploiement maximum, dont les heures régulières de travail étaient les suivantes:

Heures par semaine	40 hres ou moins	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 et plus	Total
Ile du P.-E.	-	-	-	-	32	-	-	-	-	-	7	39
N.-Ecosse	73	3	30	6	327	14	9	32	1	64	248	807
N.-Brunswick	33	1	49	3	83	-	4	210	6	33	17	439
Québec	226	14	471	18	1,168	500	20	214	12	286	236	3,165
Ontario	661	88	637	99	1,154	825	19	203	73	277	551	4,587
Manitoba	68	6	174	1	533	18	-	-	-	31	27	858
Saskatchewan	13	-	27	27	164	3	7	35	2	60	12	350
Alberta	126	1	34	-	244	-	4	-	-	-	2	411
C.B. et Yukon	315	2	154	8	629	-	-	-	-	-	2	1,110
CANADA	1,515	115	1,576	162	4,334	1,360	63	694	94	751	1,102	11,766
P.C. du Total	12.9	1.0	13.4	1.4	36.8	11.5	.5	5.9	.8	6.4	9.4	100.0



TABLEAU 8 - USAGERS

Suivant les explications du tableau 5 les stations doivent diviser leurs clients en sept classes mais comme plusieurs ne peuvent établir de distinction bien nette entre les services ménagers et les services de ferme, ces deux services sont combinés. La municipalité qui éclaire ses rues à l'électricité est considérée comme un usager. Dans certains cas les usines commerciales fournissent le courant et, dans d'autres, la municipalité en fait elle-même la distribution. Les provinces à fort pourcentage de population urbaine sont aussi celles qui comptent proportionnellement le plus d'usagers ménagers. La moyenne d'usagers ménagers par 100 habitants est passée de 12.82 en 1935 à 13.10 en 1936. Elle est établie sur les populations estimatives compilées par le Bureau, et chaque domicile ou famille desservi est compté comme un usager. Le calcul en a été fait pour la première fois en 1920, et la moyenne du Canada, alors établie à 8.86, est maintenant de 13.10 soit une augmentation de 47.8 p.c. L'Alberta est la seule province dont la population progresse plus rapidement que le nombre de ses usagers ménagers durant ces dix-sept années. Au Nouveau-Brunswick, le nombre d'usagers a plus que doublé; il a augmenté de 97 p.c. en Nouvelle-Ecosse, de 64 p.c. en Ontario, de 65 p.c. dans l'Île du Prince-Edouard, de 48 p.c. en Saskatchewan, de 35 p.c. en Colombie Britannique, de 29 p.c. dans le Québec et de 22 p.c. dans le Manitoba. Dans la comparaison de ces taux d'augmentation il importe de tenir compte de la densité de la population au début de la période. Au Manitoba, par exemple, la densité était en 1920 de 8.76, soit plus du double de celle du Nouveau-Brunswick et plus du triple de celle de l'Île du Prince-Edouard.

TABLEAU 9 - MILLES DE LIGNES SUR POTEAUX

Les lignes de transmission et de distribution sont groupées dans le présent tableau, au lieu d'être séparées comme dans les rapports antérieurs à 1934. Une division indique le nombre de milles de lignes sur pylône et poteaux d'acier, de bois ou de béton, de câbles souterrains ou souterrains, et une autre division les réseaux urbains et les lignes des tranchées, le long des routes, pour le service rural. Les pylônes et poteaux d'acier servent presque exclusivement aux lignes de transmission de haut voltage, et seuls le Québec, l'Ontario et le Manitoba comptent un grand nombre de milles de lignes.

TABLEAUX 10, 11, 12 et 13 - OUTILLAGE

L'outillage des usines génératrices est divisé en deux groupes: l'outillage principal et l'outillage auxiliaire ou de réserve. Par outillage auxiliaire il faut comprendre les engins ou turbines à vapeur, les engins à combustion interne, les dynamos qu'ils actionnent dans les usines hydroélectriques, ainsi que tout l'outillage des stations non génératrices. Tout autre outillage est classé comme outillage ou agencement principal et comprend les roues et turbines hydrauliques, les générateurs qu'elles actionnent dans les usines hydroélectriques, et tout outillage des usines exclusivement thermiques. Il peut arriver que des usines thermiques aient à leur disposition quelque outillage auxiliaire pour parer aux besoins urgents ou aux charges occasionnelles, et que d'autres usines hydrauliques aient aussi en réserve un certain outillage hydraulique pour les mêmes fins sans qu'il soit classé comme outillage principal. Bien que des usines hydroélectriques se servent de leur outillage thermique quand l'eau est basse ou que la demande est forte, cependant elles n'y ont recours que dans les cas d'urgence. Au cours de l'année l'outillage auxiliaire a généré 8,530,000 kw.h. Dans les rapports précédents, ces tableaux sont basés sur l'outillage et les évaluations déclarés en 1923 avec additions et réductions selon le cas. Une nouvelle vérification a été faite en 1936 de tout l'outillage et ce rapport comprend toutes les révisions et corrections. Comme il a déjà été mentionné, l'établissement québécois à Chats falls sur la rivière Ottawa n'a pas été en exploitation en 1936 et partant son outillage n'est pas compris dans les statistiques de 1936. C'est le principal facteur de la diminution de 120,489 h.p. dans l'outillage primaire principal. La capacité génératrice du Québec cependant accuse une augmentation de 20,084 kVA, malgré l'exclusion de 94,000 kVA dans cet outillage, à cause de révisions et d'augmentations dans les évaluations des générateurs de quelques-unes des grandes usines. Au cours de l'année la capacité de rendement de l'outillage s'est légèrement accrue. Les usines de l'Ontario augmentent de 121,795 p., mais les augmentations sont faibles dans les autres provinces et le total du Canada passe de 7,310,973 h.p. à 7,319,893 h.p. y compris la production de l'outillage auxiliaire (200,621 p.). Le nombre des grandes turbines hydrauliques (plus de 25,000 h.p.) a augmenté de 3 unités et leur capacité de 124,000 h.p.; le nombre des grands générateurs a également augmenté de 3 unités et leur capacité de 193,590 kVA.

En vérifiant l'outillage de 1936 il a été tenté d'obtenir des données sur l'outillage de rechange et inutilisé dans chaque établissement. C'est une addition à l'outillage thermique auxiliaire des centrales hydrauliques et ne générant pas de pouvoir, lequel, dans la plupart des cas, est aussi de l'outillage de rechange. L'outillage total de rechange tel que déclaré est de 247,061 h.p., sans compter 112,000 h.p. aux établissements de Chats Falls temporairement inactifs et qui n'étaient pas compris dans les statistiques de 1936. Ce total est de 359,061 h.p. des installations principales, et, ajouté aux 200,621 h.p. des installations auxiliaires, porte le grand total à 447,682 h.p. ou 6.1 p.c. de toute la capacité de l'outillage principal. Dans certains systèmes cet outillage de rechange est maintenu pour remplacer les unités pendant leur revise et pour parer aux courtes périodes de maximum de charge. Dans d'autres, c'est l'excédent des besoins d'énergie de 1936. Quelques centrales seulement, qui vendent leur surplus de pouvoir pour les bouilloires électriques et autres usages de même nature, ont déclaré de l'outillage de rechange, et le nombre de toutes les centrales en ayant déclaré n'équivaut qu'à un petit pourcentage du total.

Province	Outillage de rechange	Outillage thermique auxiliaire	Total	P.C. de la capacité totale
	H.P.	H.P.	H.P.	
Ile du Prince-Edouard .....	2,500	165	2,665	42.8
Nouvelle-Ecosse .....	225	14,284	14,509	9.3
Nouveau-Brunswick .....	1,600	4,725	6,325	4.4
Québec .....	77,441	38,547	115,988	3.4
Ontario .....	123,999	40,496	164,495	7.3
Manitoba .....	132	31,090	31,222	6.6
Saskatchewan .....	30,306	-	30,306	2.1
Alberta .....	6,951	21,203	28,154	18.6
Colombie Britannique et Yukon .....	3,907	50,111	54,018	8.9
TOTAL .....	247,061	200,621	447,682	6.1

TABLEAU 14 - COURANT ELECTRIQUE GENERE

Par courant électrique généré il faut entendre la production des usines génératrices moins l'énergie consommée par les usines elles-mêmes; l'expression comprend donc aussi les pertes de transformateurs et les pertes de lignes au cours de la livraison de l'énergie aux consommateurs. Toutes les grandes usines mesurent leur production, et à défaut de wattheure mètres le nombre des kw.h. reste estimatif. Le rendement potentiel en kVA mentionné est le rendement potentiel, à la fin de l'année, des dynamos tant de l'outillage principal que de l'outillage auxiliaire des usines génératrices; cependant les taux de production maximum sont établis sur le nombre de kw.h. générés; et sur le rendement potentiel déclaré des dynamos multiplié par le nombre d'heures pendant lesquelles les machines sont demeurées actives. Ainsi le rendement potentiel maximum pour une dynamo de 1,000 kVA, pour un an, devrait être de 8,760,000 kw.h.; mais, installée le 30 novembre, la capacité maximum serait limitée à 744,000 kw.h. à l'unité de facteur de puissance. Les taux deviennent donc directement sujets à comparaison pour chaque année, compte tenu de la date à laquelle les additions sont effectuées à la capacité génératrice de l'industrie; la hausse et la baisse indiquent alors la position de l'offre et de la demande sur une base de kw.h. En 1936, le taux est de 47.4 p.c., soit une augmentation de 2.6 points sur 1935. Le taux maximum est celui de 1928, avec 51.2 p.c.; il a diminué ensuite chaque année jusqu'en 1932. Le débit n'atteindra jamais, c'est évident, 100 p.c. de la capacité potentielle de l'industrie; il est évident aussi que les aménagements actuels peuvent répondre à une demande beaucoup plus forte que la charge de 1936. Des usines ont trouvé à vendre leur surplus de charge et leur énergie des heures creuses aux bouilloires électriques, débouché commercial qui a progressé très rapidement. En 1924 cette énergie secondaire s'élève à 260,489,000 kw.h., et en 1936, à 6,942,841,000 kw.h.



ELECTRICITE VENDUE POUR LE CHAUFFAGE DES CHAUDIERES A VAPEUR  
(En milliers de kilowatt-heures)

Mois	1 9 3 3	1 9 3 4	1 9 3 5	1 9 3 6
Janvier .....	296,520	407,857	554,218	560,230
Février .....	303,184	395,227	500,103	529,423
Mars .....	312,943	445,842	518,053	622,208
Avril .....	302,020	493,601	515,778	685,527
Mai .....	292,976	474,838	523,922	581,429
Juin .....	277,626	436,102	462,598	518,029
Juillet .....	277,769	356,157	427,328	504,160
Août .....	299,100	369,660	414,138	490,277
Septembre .....	259,575	346,985	459,724	498,474
Octobre .....	300,911	455,524	600,143	618,109
Novembre .....	403,413	561,112	636,054	654,015
Décembre .....	415,173	594,227	632,590	680,960
TOTAL .....	3,741,210	5,337,133	x 6,312,387	6,942,841

x Y compris 67,738,000 kilowatt-heures non distribués.

TABLEAU 15 - COMBUSTIBLE

Presque tout le combustible employé se compose de charbon, d'huile et de gaz régionaux, etc., de toutes les provinces, la Saskatchewan et la Nouvelle-Ecosse sont les seules à faire usage d'une quantité considérable de combustible dans la génération de l'énergie électrique. La Nouvelle-Ecosse compte plusieurs usines hydroélectriques, mais la Saskatchewan n'en compte qu'une seule, près de la frontière manitobaine, et les statistiques qui s'y rapportent font partie de celles des usines du Manitoba. Les "autres combustibles" comprennent presque exclusivement de la vapeur qu'achète une usine de la Nouvelle-Ecosse.

SERVICE MENAGER

Le tableau de la page suivante groupe et analyse toutes les données du service ménager dans chaque province. La concentration de la population dans les cités, les villes et les villages rend le service électrique influé sur le nombre d'usagers, leur proportion par 100 habitants et les taux de consommation, tant de la consommation provinciale totale que de la consommation ménagère au Canada. Le prix peut avoir des effets sur la consommation, sur la moyenne des états de consommation, sur la moyenne du prix de revient le kw.h. ainsi que sur le nombre de consommateurs. Le mode de paiement pour le service peut influencer considérablement sur la moyenne de la consommation et du prix de revient le kw.h. Les taux uniformes et les taux progressifs, surtout les premiers, stimulent la consommation, mais ils tendent à augmenter de beaucoup la consommation en kw.h. et à réduire le coût moyen par unité; toutefois, ils peuvent augmenter la charge requise d'une fraction seulement du taux d'augmentation de la consommation. Les us et coutumes peuvent aussi avoir leur effet sur la consommation. C'est en Colombie Britannique que la densité des consommateurs est la plus forte; viennent ensuite l'Ontario et le Québec. C'est au Manitoba que le prix de revient le kw.h. est le plus bas et la consommation par usager et par tête la plus élevée. Le tarif fixe sur les chauff-eau, à Winnipeg, influence considérablement sur ces moyennes. Le même tarif, en vigueur dans l'Ontario, influe aussi sur les moyennes de cette province, mais non autant parce que la consommation de ce chef y représente un plus faible pourcentage de la consommation totale que dans le Manitoba.

SERVICE DOMESTIQUE

1 9 3 6

Province	Nombre d'usagers		Compte moyen (de l'année)	Moyenne par kilowatt- heure	Consommation moyenne annuelle		Consommation du service domestique	
	Total	Par 1,000 âmes			Par usager	Par tête	P.C. de la consomma- tion pro- vinciale totale	P.C. de la consomma- tion du S.D. du Canada
Ile du Prince- Edouard .....	4,379	4.76	33.21	7.15	465	22	35.3	.1
Nouvelle- Ecosse .....	54,763	10.20	26.61	4.99	533	54	7.1	1.5
Nouveau- Brunswick ...	38,660	8.89	27.63	4.84	570	51	5.3	1.2
Québec .....	390,711	12.62	19.77	3.19	619	78	2.2	12.8
Ontario .....	634,052	17.18	27.94	1.61	1,732	298	13.3	58.2
Manitoba .....	75,858	10.67	39.93	1.02	3,903	416	18.8	15.7
Saskatchewan .	46,478	4.99	39.84	5.14	776	39	24.8	1.9
Alberta .....	59,600	7.72	30.02	5.34	562	43	15.2	1.8
Colombie Bri- tannique et Yukon .....	138,558	18.38	26.11	2.83	922	169	7.6	6.8
CANADA .....	1,443,059	13.10	26.61	2.03	1,308	171	7.9	100.0

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**1936**

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DU CANADA**

(Préparé en collaboration avec le Bureau Fédéral  
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**CENSUS OF INDUSTRY**

**1937**

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

(Prepared in collaboration with the Dominion  
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**DOMINION BUREAU OF STATISTICS**  
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**OTTAWA**

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Dominion Statistician, R.H. COATS, LL. D., F.R.S.C., F.S.S. (Hon.)

Chief, Transportation and Public Utilities Branch, G.S. Wrong, B.Sc.

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CENTRAL ELECTRIC STATION INDUSTRY, 1937

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 24 stations which were holding generating equipment classed as auxiliary plant equipment. Eighteen of them purchased all their electric energy and the remaining six generated only 537,473 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

The output of central electric stations rose fairly continuously up to May, 1930, and for the following two years declines were reported, but from the middle of 1932 to the end of 1938 the improvement has been fairly steady and rapid, and the index number of monthly productions reached a peak at 224 for September, 1938, the average of 1926 being 100. The low point reached in 1932 was an index number of 123 for July and the previous high point was 156 for May, 1930.

The total output for the year was 27,687,646,000 kilowatt hours which, however, was only 50.3 per cent of the rated capacity of the equipment. Of course a ratio of 100 per cent is not possible with varying loads, but in 1928 the ratio was 51.2 per cent. The 1937 ratio was an increase of 2.9 points over the 1936 ratio and it was due to several causes, including increased consumption in mines and manufacturing and in



commercial lighting and domestic uses. An increasing quantity of off-peak or secondary power has been produced for consumption in electric boilers which in 1937 amounted to 7,313,014,000 kilowatt hours, or 26 per cent of the total output. The corresponding figures for 1936 were 6,942,841,000 kilowatt hours and 27 per cent. The increase in total output of 2,235,364,000 kilowatt hours, or 9.0 per cent, included increases of 370,173,000 kilowatt hours in secondary power for electric boilers and 117,488,000 kilowatt hours in off-peak and surplus power exported to the United States. Thus the increase in firm power production, including all line losses was 1,797,703,000 kilowatt hours, or 9.9 per cent. An important factor in this increase was the greater activity in the metal mining and smelting industries. The pulp and paper industry took 10,292,532,000 kilowatt hours, or 37 per cent of the total output. This consisted of 5,395,234,000 kilowatt hours of secondary power for boilers, which was 74 per cent of the total quantity so used by all industries, and 4,897,298,000 kilowatt hours of firm power for power and light. The total was only 182,844,000 kilowatt hours, or 1.8 per cent, above the 1936 consumption by these mills. The consumption for domestic use (residence lighting, etc.) increased by 120,317,000 kilowatt hours, or 6.4 per cent, which was slightly below the percentage increase of 1936 over the 1935 consumption.

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1926. During the fiscal year ended March 31, 1938, the export duty amounted to \$430,544 as against \$339,965 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export for the calendar year 1937, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES  
(Calendar Year 1937)

Company	Produced for Export Kw.h.	Exported Kw.h.
Hydro Electric Power Commission of Ontario .....	390,781,700	386,310,900
" " " " (surplus) .....	447,159,900	439,491,214
Cedar Rapids Manufacturing and Power Co., Ltd. ....	597,688,871	570,733,439
Canadian Niagara Power Co., Ltd. ....	397,745,100	379,904,201
" " " " (surplus) .....	12,109,200	12,109,200
Ontario and Minnesota Power Co., Ltd. ....	35,215,850	35,215,850
Maine and New Brunswick Electric Power Co. ....	17,307,553	16,700,587
British Columbia Electric Railway Co., Ltd. ....	216,230	188,113
Northport Power and Light Co. ....	305,958	305,958
Maritime Electric Company, Ltd. ....	397,680	397,680
Southern Canada Power Company .....	444,398	444,398
Canadian Cottons, Ltd. ....	497,283	497,283
Northern British Columbia Power Co. ....	39,270	39,270
Fraser Companies, Ltd. ....	3,873,000	3,873,000
Detroit and Windsor Subway Company .....	277,800	277,800
Manitoba Power Commission .....	610,894	610,894
<b>TOTAL .....</b>	<b>1,904,670,687</b>	<b>1,847,099,787</b>
<b>Kilowatt hours produced for export and exported by central electric stations only .....</b>	<b>1,900,797,687</b>	<b>1,843,226,787</b>



Of the total output of 27,687,645,000 kilowatt hours, 27,175,722,000 kilowatt hours, or over 98 per cent, were produced by water power, whereas only 507,731,000 kilowatt hours were produced by plants using only thermal engines and 4,192,000 kilowatt hours were produced by auxiliary equipment in hydraulic and non-generating stations.

The total hydraulic installation in all industries in Canada in 1937, as compiled by the Dominion Water and Power Bureau was 8,112,751 horse-power which was about 18.5 per cent of the total that the recorded falls would warrant installing under present day practices. The available and developed water power in Canada is shown in the following table.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 3 7	1 9 3 8
(1)	(2) H.P.	(3) H.P.	(4) H.P.	(5) H.P.
Prince Edward Island ...	3,000	5,300	2,439	2,617
Nova Scotia .....	20,800	128,300	123,437	130,617
New Brunswick .....	68,600	169,100	133,681	133,347
Quebec .....	8,459,000	13,064,000	3,999,686	4,031,063
Ontario .....	5,330,000	6,940,000	2,577,380	2,582,959
Manitoba .....	3,309,000	5,344,500	405,325	420,925
Saskatchewan .....	542,000	1,082,000	61,035	61,035
Alberta .....	390,000	1,049,500	71,597	71,997
British Columbia .....	1,931,000	5,103,500	719,972	738,013
Yukon & Northwest Territories .....	294,000	731,000	18,199	18,199
CANADA .....	20,347,400	33,617,200	8,112,751	8,190,772

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power.

The following table shows the provincial production plus imports less exports, the net amount being the consumption within each province including all line losses; the deliveries to electric boilers in each province are shown here segregated from other uses. The consumption of electric energy is further analyzed in table 14.

CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)  
(Thousands of Kilowatt Hours)

Province	Secondary Power delivered to Electric Boilers 1 9 3 7	Other Uses and Line Losses 1 9 3 7	T o t a l		I n c r e a s e	
			1 9 3 7	1 9 3 6	1937 over 1936	
					Kw.h.	p.c.
P.E. Island .....	...	6,524	6,524	5,769	755	13.09
Nova Scotia .....	...	446,976	446,976	412,294	34,682	8.41
New Brunswick ....	42,460	447,034	489,494	415,603	73,891	17.78
Quebec .....	5,786,682	6,403,230	12,189,912	11,138,098	1,051,814	9.44
Ontario .....	1,000,754	7,850,025	8,850,779	8,245,975	604,804	7.33
Manitoba .....	476,985	1,220,262	1,697,247	1,574,930	122,317	7.77
Saskatchewan .....	...	147,143	147,143	145,219	1,924	1.32
Alberta .....	...	225,551	225,551	219,565	5,986	2.73
British Columbia and Yukon .....	6,133	1,785,976	1,792,109	1,671,614	120,495	7.21
CANADA .....	7,313,014	18,532,721	25,845,735	23,829,067	2,016,668	8.46

TABLE 1 - COMPARATIVE SUMMARY, 1928-1937

During the year the number of hydro-electric plants was decreased by 2 and the number of fuel plants, or plants using thermal engines exclusively, was increased by 5. The capital has been increasing steadily, 1937 being 57 per cent above 1928 and .96 per cent, or \$14,213,582 above 1936. During 1937 revenue increased by \$7,681,470, or 5.7 per cent, and expenses (wages, power purchased, fuel, and taxes) by \$6,246,032. Pole line mileage was extended 3,599 miles and the number of customers was larger by 65,202. Since 1928, 292,671 domestic customers have been added to the lines and the production of electricity has increased 69.5 per cent. The generator capacity of the industry has increased 64.9 per cent since 1928 and at the close of 1937 amounted to 6,206,465 kilovolt amperes.

TABLE 2 - DOMESTIC SERVICE, 1930-1937

This table shows the number of customers, the consumption, revenue, and averages computed from these for domestic service including farm service for 1930 to 1937 which is as far back as all the data are available. In all provinces the number of customers increased between 1930 and 1937, the percentages ranging from 1.9 per cent in Saskatchewan to 36.2 per cent in Nova Scotia. The total consumption also increased in all provinces, Nova Scotia leading here also with an increase of 99.0 per cent. All provinces except Saskatchewan showed increased revenues from domestic service. The average annual consumption per customer varied widely, Manitoba leading with an average in 1937 of 3,963 kilowatt hours per customer and Prince Edward Island showing the smallest consumption at 491 kilowatt hours. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario, and British Columbia have been remarkably close together throughout these eight years despite the wide variations in unit costs. Domestic services are further discussed at the end of this report.



### TABLE 3 - POWER PLANTS

The generating stations are the individual power plants of the central electric stations. Each building housing power machinery is counted as a generating station. The commercial organizations are companies and individuals selling electric energy and the municipalities include urban and rural municipalities, provincial commissions, etc., selling electric energy. Those generating power operate from one to several power plants each, the largest system being the Ontario Hydro Electric Power Commission which operates 47 hydraulic plants and owns one steam auxiliary plant. The auxiliary plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations.

### TABLE 4 - CAPITAL

The capital employed in the industry is reported under three heads, viz., generation, transmission and distribution, and general. "Generation" includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. "Transmission and distribution" includes all transmission and distribution towers, poles, wires, cables and conduits and right-of-way, receiving stations and substations and sites, switchboards and step-up transformers in these and in power houses, step-down transformers, meters, etc. "General" includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal years, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. The averages of total capital per unit of power are more indicative of different classes of stations and service given than costs of similar installations. The same also applies to generation capital per unit of power, only to a lesser degree.

### TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service, which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick, and Alberta, which purchased power from other provinces, were lower than they should have been.†

The average revenues per kilowatt hour sold are affected by many factors and are always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, even here the source of supply, the firm power load, the market for off-peak and plus power, and the cost of generation, transmission, and distribution all affect

† See 1933 report, page 5, for effect of this omission.



the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services and for commercial light, line losses were not included. The consumption for these two services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters where different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average cost of 1.96 cents per kilowatt hour for all domestic service compares with an average of 4.39 cents in the United States. The average revenues per horsepower and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in tables 12 and 13 were increased one horse-power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro Electric Power Commission contracts with Quebec companies which call for 33 kilowatt hours per week for each horse-power purchased. It is quite probable this output is a little too high for all the power imported from Quebec and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

#### TABLE 6 - EXPENSES

These data include only the four items. (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Salaries and wages increased from \$23,367,091 in 1936 to \$25,623,767, or by 9.7 per cent, all provinces showing larger pay rolls. The fuel bill also increased from \$2,303,786 to \$2,582,729. The increase in taxes during the year was \$1,344,714, growing from \$8,499,087 in 1936 to \$9,843,801. Commercial stations paid \$9,256,477, or 94 per cent of the total. More than half of the taxes paid by municipal stations was paid by stations in Ontario. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations.

**TABLE 7 - EMPLOYEES**

Stations in all provinces except New Brunswick and Alberta showed increases in the number of employees, the net increase being 931 employees. The table below analyzes the hours of labour of wage-earners in the industry. Approximately one-half of the employees worked a 48-hour week and two-thirds worked 48 hours or less per week.

**NUMBER OF WAGE-EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS PER WEEK WERE:-**

Hours per Week	40 or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 & over	Total
P.E.I.	-	-	-	-	30	-	-	-	-	-	3	33
N.S.	138	8	49	9	623	12	22	47	6	54	158	1,126
N.B.	62	12	6	48	83	1	1	163	-	28	7	411
Quebec	379	134	108	31	1,655	157	9	1,016	7	100	197	3,793
Ontario	650	76	477	93	2,489	206	51	230	23	170	228	4,693
Manitoba	70	-	117	-	452	58	-	-	-	-	23	720
Sask.	76	1	56	15	177	3	3	71	-	-	21	423
Alberta	196	-	-	-	135	3	5	-	-	9	2	350
B.C. and Yukon	400	-	195	24	705	1	-	-	5	12	7	1,349
CANADA	1,971	231	1,008	220	6,349	441	91	1,527	41	373	646	12,898
Per cent of Total	15.28	1.79	7.82	1.71	49.22	3.42	.70	11.84	.32	2.89	5.01	100.00

**TABLE 8 - CUSTOMERS**

As explained under table 4, stations are asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. The number of farm customers reported for 1937 was 66,422, or 4.4 per cent of the combined domestic and farm customers, and they consumed 67,818,000 kilowatt hours. It is quite probable the actual number of farms served was considerably greater than this. The population census of 1931 showed 58,741 farms with electric service whereas the central electric stations reported 43,250 farm customers, the difference probably being included with domestic services. Undoubtedly the records have been improved since 1931 which was the second year the segregation was requested, and the number reported in 1937 is closer to the actual number served. Farms close to large urban centres receiving service at rates similar to urban customers still will be classed as domestic customers in many cases. In Ontario where the majority of farm customers are served by the provincial commission and are classed as farm customers the difference from the 1931 census figure was small. In 1937 the Ontario farm customers reported were 39,281, or 59 per cent of the total. Quebec stations reported 19,505 farm customers. For the other provinces 7,636 were reported, but if the 1931 data can be used as a criterion this is considerably less than the actual number of farms served. A reliable check will be available when the 1941 population census is taken. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial



stations and in others the municipality itself distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. The average number of domestic service customers per 100 population increased from 13.10 in 1936 to 13.5 in 1937. These averages are based on the Bureau estimated populations and each residence or family served is counted as one customer. These averages were first computed for 1920 and since then the average for Canada has increased from 8.86 to 13.5, or by 52.4 per cent. In Alberta the density was fairly high in 1920 and the increase between 1920 and 1937 was only slightly greater than the increase in population, but in the other provinces the increase has been much greater than the increase in population. In New Brunswick the average number of domestic service customers per 100 population increased by 144 per cent, in Nova Scotia by 109 per cent, in Prince Edward Island by 69 per cent, in Quebec by 39 per cent, in Ontario by 70 per cent, in Manitoba by 22 per cent, in Saskatchewan by 46 per cent, and in British Columbia by 39 per cent. When comparing these rates of increase the densities at the beginning of the period should be analysed; for example, Manitoba had a density of 8.76 in 1920, or more than twice the density of New Brunswick and three times that of Prince Edward Island.

#### TABLE 9 - POLE LINE MILEAGE

Transmission and distribution lines have been combined in this table instead of being separated as in reports previous to 1934 and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario, and Manitoba have extensive mileages. The decrease from 1936 mileage in underground cable in Ontario was due to a correction and the actual mileage showed a slight increase.

#### TABLES 10-11-12-13 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand the greater part of it is held strictly in reserve for emergencies, only 3,655,000 kilowatt hours being generated during the year by this auxiliary equipment. During the year the plant on the Quebec side of Chats Falls came back into operation with four units of 28,000 horse power each, a new unit of 45,000 horse power was installed at Isle Maligne, and several smaller units were added in other plants, bringing the total up to 7,539,435 horse power.



TABLE 14 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt-hour meters the kilowatt hours are estimated as best possible. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 Kv.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio for 1937 was 50.3 per cent, an increase of 2.9 points over 1936 and only a fraction of a point below the peak of 51.2 for 1928. While this ratio will not reach 100 per cent, the present installations could undoubtedly meet a demand considerably greater than the 1937 load. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale has been growing quite rapidly. In 1924 this secondary power amounted to only 260,489,000 kilowatt hours, but in 1937 it had grown to 7,313,014,000 kilowatt hours.

ELECTRICITY SOLD FOR USE IN ELECTRIC BOILERS  
(Thousands of Kilowatt Hours)

Month	1934	1935	1936	1937
January	407,857	554,218	560,230	708,188
February	395,227	500,103	529,423	664,150
March	445,842	518,053	622,208	706,651
April	493,601	515,778	685,527	648,127
May	474,838	523,922	581,429	620,589
June	436,102	462,598	518,029	600,398
July	356,157	427,328	504,160	513,634
August	369,660	414,138	490,277	491,409
September	346,985	459,724	498,474	487,348
October	455,524	600,143	618,109	566,436
November	561,112	636,054	654,015	636,633
December	594,227	632,590	680,960	669,451
TOTAL	5,337,133	+ 6,312,387	6,942,841	7,313,014

+ Includes 67,738,000 kilowatt hours not distributed.

TABLE 15 - FUEL

Fuel used is almost entirely local coal, oil, and gas, and Saskatchewan and Nova Scotia are the only provinces using any substantial quantities of fuel to develop electric energy. Nova Scotia has several large hydro-electric developments, but

Saskatchewan has only one which is on the Manitoba boundary and is included with Manitoba stations in these statistics. "Other fuel" is composed almost entirely of steam purchased by a Nova Scotia station.

### DOMESTIC SERVICE

Below is a table bringing together and analyzing the domestic service data for each province. The concentration of population in the cities, towns and villages having electric service would affect the number of customers, the number per 100 population, and ratios of consumption to total provincial consumptions and to the domestic consumption in Canada. The price would affect consumption, average bill, average cost per kilowatt hour, and, to a lesser degree, the number of customers. The method of charging for service would also have a marked effect on the average consumption and average cost per kilowatt hour. Flat rate charges and sliding scales which induce increased consumption, particularly the first, tend to greatly increase the kilowatt hour consumption and reduce the average cost per kilowatt hour although they may increase the connected load by only a fraction of the rate of consumption increase. The habits and customs of the people also would have an effect on the consumption. British Columbia ranked first in density of customers, Ontario was second and Nova Scotia third. Manitoba showed by far the lowest average cost per kilowatt hour and the largest consumption per customer and per capita. These were considerably affected by the flat rate for water heaters in Winnipeg. Flat rate water heaters in Ontario also affect Ontario averages, but not to the same extent because the consumption of these heaters was a smaller percentage of the total consumption than in Manitoba.

### DOMESTIC SERVICE, 1937

PROVINCE	NUMBER OF CUSTOMERS		AVERAGE BILL FOR YEAR \$	AVERAGE PER KILOWATT HOUR Cents	AVERAGE ANNUAL CONSUMPTION		CONSUMPTION BY DOMESTIC SERVICE	
	Total	Per 100 Population			Per Customer Kw.Hr.	Per Capita Kw.Hr.	Per cent of total Provincial Consumption	Per cent of Dominion Dom. Service Consumption
P.E. Island	4,545	4.89	33.59	6.84	491	24	34.2	.1
Nova Scotia	58,165	10.73	26.40	4.84	545	58	7.1	1.6
New Brunswick	41,604	9.46	26.87	4.76	565	53	4.8	1.2
Quebec	407,155	12.99	19.92	3.06	652	85	2.2	13.2
Ontario	660,262	17.79	26.84	1.51	1,779	316	13.3	58.5
Manitoba	76,516	10.67	40.81	1.03	3,963	423	17.9	15.1
Saskatchewan	46,630	4.97	39.73	4.98	798	40	25.3	1.8
Alberta	61,121	7.86	30.52	5.28	578	45	15.7	1.8
B.C. and Yukon	144,130	19.09	26.22	2.81	933	178	7.5	6.7
CANADA	1,500,128	13.50	26.17	1.96	1,338	181	7.8	100.0



MILLIONS  
OF  
KILOWATT  
HOURS

# CENTRAL ELECTRIC STATIONS

## 1924 - 1938

TOTAL MONTHLY  
OUTPUT

BOILER CONSUMPTION

EXPORTS  
TO  
U.S.A.

OUTPUT LESS BOILER  
CONSUMPTION AND EXPORTS

1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938

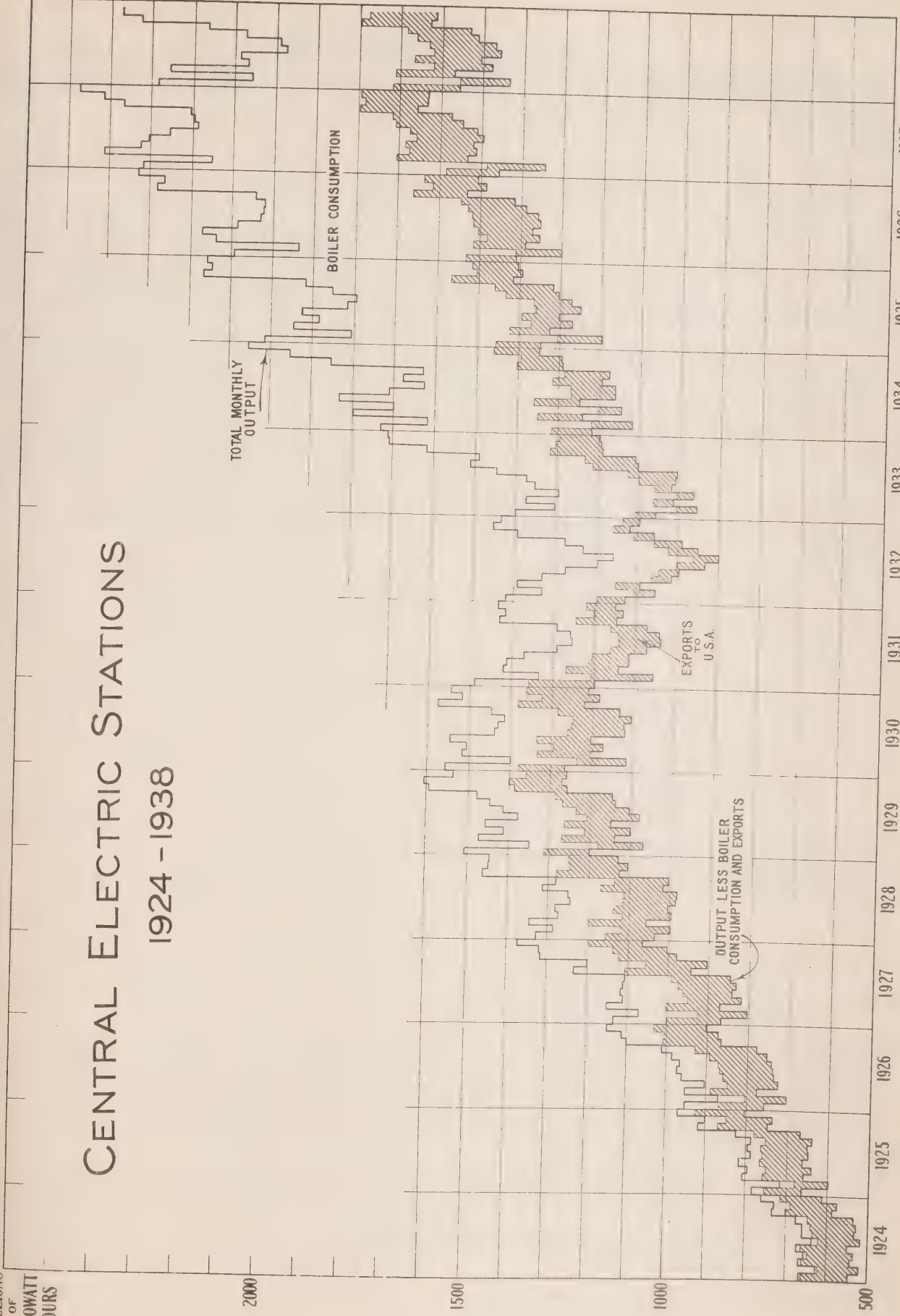




Table 1.- COMPARATIVE SUMMARY, 1928-1937

PRINCIPAL DATA BY CLASS OF STATION	1937	1936	1935	1934	1933
<b>ELECTRIC POWER PLANTS</b>					
Total .....	588	561	566	573	
Commercial .....	314	312	316	314	
Fuel .....	254	249	250	259	
Commercial .....	369	390	397	402	
Municipal .....	179	171	169	171	
<b>CAPITAL</b>					
Total .....	1,497,330,251	1,483,116,649	1,459,821,168	1,430,852,166	1,386,532,166
Commercial .....	979,950,159	957,466,865	962,263,142	956,382,436	913,946,166
Municipal .....	517,380,072	525,649,784	497,558,026	474,469,730	472,585,166
Generating .....	1,337,399,695	1,326,820,103	1,307,710,173	1,281,048,308	1,240,169,166
Non-generating .....	159,930,536	156,296,546	152,110,995	149,803,863	146,362,166
<b>REVENUE (1)</b>					
Total .....	143,546,643	135,865,173	127,177,954	124,465,613	117,532,166
Commercial .....	85,283,008	78,882,504	79,341,554	77,309,001	73,082,166
Municipal .....	58,263,635	56,982,669	47,836,400	47,154,612	44,450,166
Generating .....	120,465,135	112,776,015	105,638,584	104,089,041	98,735,166
Non-generating .....	23,081,508	23,089,158	21,539,370	20,374,572	18,796,166
<b>EXPENSES (2)</b>					
Total .....	84,185,082	77,939,050	79,625,134	75,948,821	73,051,166
Commercial .....	41,132,931	36,530,527	33,836,054	31,778,237	29,169,166
Municipal .....	43,052,151	41,408,523	45,789,080	44,170,584	43,882,166
Generating .....	46,114,640	41,390,019	43,904,771	40,911,113	38,808,166
Non-generating .....	38,070,442	36,549,031	35,720,363	35,037,703	34,443,166
<b>POLE LINE MILEAGE</b>					
Total .....	63,035	59,436	57,602	56,214	56,166
Commercial .....	28,332	27,271	26,520	26,476	25,166
Municipal .....	34,703	32,165	31,082	29,738	31,166
Generating .....	45,866	45,099	43,372	42,537	43,166
Non-generating .....	14,169	14,337	14,230	13,677	12,166
<b>CUSTOMERS</b>					
Total .....	1,805,995	1,740,793	1,694,703	1,660,079	1,668,166
Domestic service (3) .....	1,500,128	1,443,059	1,401,983	1,379,153	1,371,166
Commercial light .....	252,305	245,144	240,468	229,187	244,166
Power (small) .....	41,415	40,742	40,292	41,429	40,166
Power (large) .....	10,066	9,840	9,989	8,325	8,166
Street lighting .....	2,081	2,008	1,971	1,985	1,166
Commercial stations .....	833,711	802,676	779,400	760,462	776,166
Municipal stations .....	972,244	938,117	915,303	899,617	890,166
Generating stations .....	916,848	866,407	837,278	819,419	845,166
Non-generating stations .....	889,347	874,386	857,425	840,660	823,166
<b>ELECTRIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	27,687,645	25,402,282	23,283,033	21,197,124	17,338,166
Commercial .....	20,315,627	18,515,225	17,767,949	16,060,883	13,665,166
Municipal .....	7,372,018	6,887,057	5,515,084	5,136,241	3,673,166
Exports to the United States (6) .....	1,843,227	1,573,980	1,359,021	1,243,079	983,166
Imports from the United States (6) .....	1,317	765	656	642	
<b>EQUIPMENT IN GENERATING STATIONS (MAIN PLANT ONLY)</b>					
Total Primary Power .....	7,342,085 H.P.	7,119,272	7,104,142	6,854,161	6,616,166
Total in commercial stations .....	5,203,529 H.P.	5,012,968	5,138,200	4,961,639	4,707,166
Total in municipal stations .....	2,138,556 H.P.	2,106,304	1,965,942	1,892,522	1,909,166
Total Secondary Power .....	6,206,463 Kv.a.	6,023,999	5,893,984	5,699,955	5,491,166
Total in commercial stations .....	4,496,443 Kv.a.	4,340,869	4,317,823	4,179,536	3,956,166
Total in municipal stations .....	1,710,022 Kv.a.	1,683,130	1,576,161	1,520,419	1,535,166
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	197,350 H.P.	200,621	206,831	207,431	193,166
Secondary power .....	167,839 Kv.a.	172,327	176,890	177,244	164,166

(1) Duplications excluded.

(2) Includes wages, cost of power, fuel and taxes, but not other expenses.

(3) Farm service is included with domestic service.

(4) Includes small power customers in 1929.

(5) Revised.

(6) By central electric stations only. (See page 2.)

Tableau 1 - SOMMAIRE COMPARATIF, 1928-1937

1932	1931	1930	1929	1928	DONNEES PRINCIPALES PAR CLASSES D'USINES
572	559	587	585	601	<u>USINES ELECTRIQUES</u>
312	307	311	300	300	<u>Total</u>
260	252	276	285	301	Hydrauliques
402	396	421	420	428	A combustible
170	163	166	165	173	Commerciales
					Municipales
355,886,987	1,229,988,951	1,158,200,016	1,055,731,532	956,919,603	<u>CAPITAL</u>
380,013,400	785,915,480	723,890,071	685,771,270	614,910,399	<u>Total</u>
155,873,587	444,075,471	414,509,945	369,960,262	342,009,204	Commerciales
191,499,567	1,092,292,089	995,701,285	926,103,973	835,422,031	Municipales
44,387,420	137,696,862	142,498,731	129,627,559	121,497,572	Génératrices
					Non-génératrices
21,212,679	122,310,730	126,038,145	122,883,446	112,326,819	<u>RECETTES (1)</u>
73,124,089	72,103,930	73,261,572	70,874,794	64,575,700	<u>Total</u>
48,088,590	50,206,800	52,776,573	52,008,652	47,751,119	Commerciales
00,821,712	101,475,523	104,632,540	102,704,833	92,722,293	Municipales
20,390,967	20,835,207	21,405,605	20,178,613	19,604,526	Génératrices
					Non-génératrices
74,506,251	75,235,767	74,209,469	67,432,418	62,330,860	<u>DEPENSES (2)</u>
50,349,320	32,418,131	33,712,063	31,888,591	30,961,337	<u>Total</u>
43,956,931	42,817,636	40,497,406	35,543,827	31,369,523	Commerciales
40,262,157	41,336,873	40,646,659	36,713,723	33,837,618	Municipales
54,044,094	33,898,894	33,562,810	30,718,695	28,493,242	Génératrices
					Non-génératrices
53,845	52,399	48,814	42,913	37,333	<u>LIGNES SUR POTEAUX</u>
25,010	24,299	23,614	22,356	18,875	<u>Total</u>
28,835	28,100	25,200	20,557	18,458	Commerciales
40,675	39,709	35,707	30,718	25,524	Municipales
13,170	12,690	13,107	12,195	11,809	Génératrices
					Non-génératrices
1,657,454	1,632,792	1,607,881	1,555,883	1,464,005	<u>ABONNES</u>
1,357,462	1,356,721	1,317,524	1,292,481	1,207,457	<u>Total</u>
248,487	244,634	238,847	(4) 233,854	215,728	Service domestique (3)
28,942	25,913	24,836	( 28,001	( 40,820	Eclairage commercial
20,593	23,583	25,150	( 1,547	(	Force motrice (petite)
1,970	1,941	(5) 1,724	...	...	Force motrice (grosse)
					Eclairage des rues
776,400	758,285	745,608	733,698	677,223	Usines commerciales
881,054	874,507	862,158	822,185	786,782	Usines municipales
846,420	835,460	814,268	796,298	728,872	Usines génératrices
811,034	797,332	793,498	759,585	735,133	Usines non-génératrices
1,052,057	16,330,867	18,093,802	17,962,515	16,337,804	<u>ENERGIE ELECTRIQUE GENEREE</u>
1,338,216	12,191,139	12,937,014	12,774,107	11,460,974	<u>Total Kw. heures générés (milliers)</u>
1,713,841	4,139,707	5,156,788	5,188,408	4,876,830	Commerciale
					Municipale
659,691	1,227,036	1,612,281	1,444,524	1,587,761	Exportations d'électricité aux
					Etats-Unis (6) .....(milliers) Kw.h.
552	5,446	5,757	6,133	5,223	Importations d'électricité des
					Etats-Unis (6) .....(milliers) Kw.h.
343,654	5,706,757	5,401,108	4,925,555	4,627,667	<u>MACHINERIE DANS LES USINES GENERATRICES</u>
577,493	4,046,810	3,794,819	3,523,625	3,268,350	(Usines principales seulement)
786,161	1,659,947	1,606,289	1,401,930	1,359,317	<u>Total force motrice primaire</u> ..... H.P.
278,204	4,727,376	4,474,865	4,048,019	3,764,331	<u>Total dans les usines commerciales</u> ..... H.P.
850,009	3,388,926	3,181,428	2,940,210	2,690,097	<u>Total dans les usines municipales</u> ..... H.P.
428,195	1,338,450	1,293,437	1,107,809	1,074,234	<u>Total force motrice secondaire</u> .....Kv.a.
					<u>Total dans les usines commerciales</u> .....Kv.a.
					<u>Total dans les usines municipales</u> .....Kv.a.
184,879	184,043	171,453	171,888	159,233	<u>OUTILLAGE D'USINES AUXILIAIRES</u>
157,077	157,221	145,878	146,251	135,440	Force motrice primaire ..... H.P.
					Force motrice secondaire .....Kv.a.

- ) Duplications exclues.  
 ) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.  
 ) L'éclairage des fermes est inclus dans l'éclairage domestique.  
 ) Comprend les petits consommateurs d'énergie en 1929.  
 ) Révisé.  
 ) Par usines centrales électriques seulement. (Voir page 2.)



Table 2 - DOMESTIC SERVICE, 1930-1937

Year Année	Number of Customers Nombre d'usages	Kilowatt Hours Consumed Kilowatt heures consommés (000)	Revenue Recettes	Kw. Hours per Customer Consumption moyenne annuelle par usager kw. hrs.	Average Annual Bill Compte moyen de l'année	Revenue Kilowatt Moyenne kilowatt heures
CANADA .....						
1930	1,317,324	1,489,574	34,114,680	1,131	25.90	2.29
1931	1,336,721	1,563,704	35,259,391	1,170	26.38	2.25
1932	1,357,462	1,639,498	36,422,073	1,208	26.83	2.22
1933	1,371,806	1,650,395	35,953,823	1,203	26.21	2.18
1934	1,379,153	1,717,090	36,507,822	1,245	26.47	2.13
1935	1,401,983	1,769,348	36,773,643	1,262	26.23	2.08
1936	1,443,059	1,887,116	38,399,102	1,308	26.61	2.03
1937	1,500,128	2,007,433	39,253,133	1,338	26.17	1.96
Change (Changement) 1930-1937-						
Amount (Volume)	+ 182,804	+ 517,859	+ 5,138,453	+ 207	+ .27	- .33
Per cent (p.c.)	+ 13.9	+ 34.8	+ 15.1	+ 18.3	+ 1.04	- 14.41
PRINCE EDWARD ISLAND ....						
1930	3,785	1,170	112,566	309	29.74	9.62
1931	3,980	1,343	120,606	337	30.30	8.98
1932	3,978	1,498	129,835	377	32.63	8.67
1933	3,970	1,584	135,231	399	34.06	8.54
1934	4,097	1,605	133,843	392	32.67	8.34
1935	4,199	1,722	134,740	410	32.08	7.82
1936	4,379	2,035	145,442	465	33.21	7.15
1937	4,545	2,232	152,660	491	33.59	6.84
Change (Changement) 1930-1937-						
Amount (Volume)	+ 760	+ 1,062	+ 40,094	+ 182	+ 3.85	- 2.78
Per cent (p.c.)	+ 20.1	+ 90.3	+ 35.6	+ 58.9	+ 12.9	- 28.9
NOVA SCOTIA .....						
1930	42,703	15,924	1,097,500	373	25.70	6.89
1931	45,252	19,120	1,151,609	423	25.45	6.02
1932	46,421	21,213	1,201,279	457	25.88	5.66
1933	47,124	21,300	1,199,951	463	25.46	5.50
1934	48,852	23,637	1,257,599	484	25.74	5.32
1935	52,300	25,937	1,330,632	496	25.44	5.13
1936	54,763	29,212	1,457,054	533	26.61	4.99
1937	58,165	31,692	1,535,298	545	26.40	4.84
Change (Changement) 1930-1937-						
Amount (Volume)	+ 15,462	+ 15,768	+ 437,798	+ 172	+ .70	- 2.05
Per cent (p.c.)	+ 36.2	+ 99.0	+ 39.9	+ 46.1	+ 2.7	- 29.3
NEW BRUNSWICK .....						
1930	32,426	15,734	839,395	485	25.39	5.33
1931	33,964	17,676	901,325	520	26.54	5.10
1932	35,543	19,230	971,597	541	27.34	5.05
1933	34,959	18,740	954,423	536	27.30	5.09
1934	35,364	19,607	962,212	554	27.21	4.91
1935	36,602	20,597	994,895	563	27.18	4.83
1936	38,660	22,049	1,068,038	570	27.63	4.84
1937	41,604	23,428	1,117,953	565	26.87	4.76
Change (Changement) 1930-1937-						
Amount (Volume)	+ 9,178	+ 7,754	+ 278,556	+ 80	+ .98	- .57
Per cent (p.c.)	+ 28.3	+ 49.3	+ 33.2	+ 16.5	+ 3.8	- 10.7
QUEBEC .....						
1930	374,725	205,457	8,082,058	548	21.57	3.93
1931	375,764	223,671	8,100,380	595	21.56	3.62
1932	385,211	239,032	8,210,401	621	21.31	3.43
1933	385,175	240,110	7,795,946	623	20.24	3.25
1934	378,705	237,322	7,776,391	627	20.53	3.28
1935	378,388	226,285	7,297,458	598	19.29	3.22
1936	390,711	241,799	7,723,973	619	19.77	3.19
1937	407,155	265,405	8,108,946	652	19.92	3.06
Change (Changement) 1930-1937-						
Amount (Volume)	+ 32,430	+ 59,948	+ 26,888	+ 104	- 1.65	- .87
Per cent (p.c.)	+ 8.7	+ 29.2	+ .3	+ 19.0	- 7.7	- 22.1



Tableau 2 - SERVICE DOMESTIQUE, 1930-1937

Year Année	Number of Customers Nombre d'usages	Kilowatt Hours Consumed Kilowatt heures consommés (000)	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager kw. hrs.	Average Annual Bill Compte moyen de l'année	Revenue per Kilowatt Hour Moyenne par kilowatt heure
ONTARIO ..... 1930	563,152	840,992	14,733,013	1,493	26.16	1.75
1931	579,721	868,072	15,448,069	1,497	26.65	1.78
1932	585,343	912,169	16,170,224	1,558	27.63	1.77
1933	598,347	917,649	16,262,707	1,534	27.18	1.77
1934	605,885	980,978	16,811,849	1,619	27.75	1.71
1935	618,111	1,023,929	17,171,434	1,657	27.78	1.68
1936	634,052	1,098,598	17,716,656	1,733	27.94	1.61
1937	660,262	1,174,358	17,718,464	1,779	28.84	1.51
Change (Changement) 1930-1937-						
Amount (Volume)	+ 97,110	+ 333,366	+ 2,985,451	+ 286	+ .68	- .24
Per cent (p.c.)	+ 17.2	+ 39.6	+ 2.0	+ 19.2	+ 2.6	- 13.7
MANITOBA ..... 1930	72,395	242,718	2,680,036	3,353	37.02	1.10
1931	71,324	257,482	2,679,138	3,610	37.56	1.04
1932	71,954	270,272	2,873,481	3,766	39.93	1.06
1933	72,935	275,048	2,743,877	3,771	37.62	1.00
1934	75,545	282,067	2,782,475	3,635	37.83	.99
1935	74,538	289,314	2,914,963	3,881	39.11	1.01
1936	75,858	296,110	3,029,140	3,903	39.93	1.02
1937	76,516	303,271	3,122,397	3,963	40.81	1.03
Change (Changement) 1930-1937-						
Amount (Volume)	+ 4,121	+ 60,553	+ 442,361	+ 610	+ 3.79	- .07
Per cent (p.c.)	+ 5.7	+ 24.9	+ 16.5	+ 18.2	+ 10.2	- 6.4
SKATCHEWAN ..... 1930	45,777	35,380	1,905,257	773	41.62	5.39
1931	44,078	35,524	1,809,029	806	41.04	5.09
1932	44,952	36,142	1,802,758	804	40.10	4.92
1933	44,319	36,317	1,775,697	819	40.07	4.89
1934	44,493	34,906	1,741,371	785	39.14	4.99
1935	45,451	35,402	1,795,683	779	39.51	5.07
1936	46,478	36,044	1,851,794	776	39.84	5.14
1937	46,630	37,234	1,852,503	798	39.73	4.98
Change (Changement) 1930-1937-						
Amount (Volume)	+ 853	+ 1,854	- 52,754	+ 25	- 1.89	- .41
Per cent (p.c.)	+ 1.9	+ 5.2	- 2.8	+ 3.2	- 4.5	- 7.6
ALBERTA ..... 1930	57,190	30,458	1,674,340	533	29.28	5.50
1931	56,890	30,196	1,721,292	531	30.26	5.70
1932	57,459	29,792	1,714,412	518	29.84	5.75
1933	57,330	29,668	1,728,351	517	30.15	5.83
1934	58,375	30,378	1,764,295	520	30.22	5.81
1935	58,127	31,636	1,714,128	544	29.49	5.42
1936	59,600	35,481	1,789,422	562	30.02	5.34
1937	61,121	35,339	1,865,520	578	30.52	5.28
Change (Changement) 1930-1937-						
Amount (Volume)	+ 3,931	+ 4,881	+ 191,180	+ 45	+ 1.24	- .22
Per cent (p.c.)	+ 6.9	+ 16.0	+ 11.4	+ 8.4	+ 4.2	- 4.0
BRITISH COLUMBIA ) ..... 1930	125,171	101,742	2,990,515	813	23.89	2.94
YUKON ) 1931	125,748	110,621	3,527,943	880	26.47	3.01
1932	126,601	110,150	3,548,086	870	26.45	3.04
1933	127,647	109,479	3,557,638	858	26.30	3.07
1934	129,837	106,590	3,277,787	821	25.25	3.08
1935	134,267	115,026	3,419,710	857	25.47	2.97
1936	138,558	127,788	3,617,603	922	26.11	2.83
1937	144,130	134,414	3,779,392	933	26.22	2.81
Change (Changement) 1930-1937-						
Amount (Volume)	+ 18,959	+ 32,672	+ 788,877	+ 120	+ 2.33	- .13
Per cent (p.c.)	+ 15.1	+ 32.1	+ 26.4	+ 14.8	+ 9.8	- 4.4

Table 3 - ELECTRIC POWER PLANTS, 1937

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>Total number of generating stations</u> .....	568	9	48	14	18
<u>Per cent of total for Canada</u> .....	100.00	1.59	8.45	2.46	3.17
<u>COMMERCIAL</u> .....	389	7	22	10	12
Hydraulic .....	207	6	12	5	6
Fuel .....	182	1	10	5	6
<u>MUNICIPAL</u> .....	179	2	26	4	6
Hydraulic .....	107	..	19	3	4
Fuel .....	72	2	7	1	2
With water wheels and turbines .....	314	6	31	8	10
With steam engines only .....	29	..	1	1	1
With steam turbines only .....	21	1	7	1	1
With gas or oil engines only .....	196	2	9	3	4
With both steam engines and turbines .....	5	..	..	1	1
With both steam and gas or oil engines .....	3	..	..	..	..
With alternating current dynamos only .....	446	8	46	9	12
With direct current dynamos only .....	120	1	2	4	4
With both alternating and direct current dynamos .....	2	..	..	1	1
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 366	8	23	22	26
Number generating power .....	278	6	13	9	11
Number buying power for redistribution .....	88	2	10	13	15
<u>MUNICIPALITIES</u> .....	X 460	2	28	11	14
Number generating power .....	79	2	10	3	4
Number buying power for redistribution .....	381	..	18	8	10
<u>AUXILIARY PLANTS</u> .....	62	2	9	3	4
To hydraulic stations .....	38	2	3	..	1
To non-generating stations .....	24	..	6	3	3

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.

Tableau 3 - USINES GENERATRICES, 1937

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
135	27	115	61	63	<u>Nombre d'usines génératrices</u>
23.77	4.75	20.25	10.74	11.09	Pourcentage du total pour le Canada
62	15	85	52	55	<u>COMMERCIALES</u>
58	4	..	5	38	Hydrauliques
4	11	85	47	17	A combustible
73	12	30	9	8	<u>MUNICIPALES</u>
64	2	..	1	5	Hydrauliques
9	10	30	8	3	A combustible
122	6	..	6	43	Avec roues et turbines hydrauliques
8	3	..	11	5	Avec machines à vapeur seulement
..	1	5	4	1	Avec turbines à vapeur seulement
5	16	108	36	14	Avec moteurs à gaz ou à pétrole seulement
..	..	2	2	..	Avec machines et turbines à vapeur à la fois
..	1	..	2	..	Avec machines à vapeur à gaz et à pétrole
132	24	46	30	58	Avec dynamos à courant alternatif seulement
3	3	69	30	5	Avec dynamos à courant direct seulement
..	..	..	1	..	Avec dynamos à courant alternatif et direct
52	17	68	53	57	<u>USINES COMMERCIALES</u>
43	11	66	45	41	Nombre d'usines génératrices
9	6	2	8	16	Nombre d'usines achetant de l'électricité pour la revendre
325	16	20	15	17	<u>MUNICIPALITES</u>
18	10	14	7	7	Nombre d'usines génératrices
307	6	6	8	10	Nombre d'usines achetant de l'électricité pour la revendre
12	6	..	9	16	<u>USINES AUXILIAIRES</u>
8	2	..	8	11	Aux usines hydrauliques
4	4	..	1	5	Aux usines non-génératrices

- Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.



Table 4 - CAPITAL, 1937

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
TOTAL CAPITAL .....	1,497,330,231	1,257,867	32,836,441	33,658,866	650,705,489
Per cent of total for Canada .....	100.00	0.08	2.19	2.25	43.5
Generation .....	899,472,760	660,597	21,013,582	23,129,732	455,428,736
Transmission and distribution .....	500,306,524	516,281	9,507,750	9,067,892	151,515,753
General .....	97,550,947	80,989	2,315,109	1,461,242	43,761,000
<u>TOTAL CAPITAL IN COMMERCIAL STATIONS</u> .....	979,950,159	1,064,100	15,596,947	23,204,607	641,876,489
Generation .....	667,523,222	533,711	7,610,718	18,731,588	450,736,489
Transmission and distribution .....	247,490,495	469,045	6,075,131	3,644,780	147,878,260
General .....	64,936,442	61,344	1,711,098	828,239	43,260,736
Non-generating stations .....	38,704,332	7,000	6,025,603	2,188,250	660,736
Generating stations .....	941,245,827	1,057,100	9,371,344	21,016,357	641,215,753
Hydraulic stations .....	917,456,547	123,849	4,247,980	17,661,894	641,175,753
Fuel stations .....	23,789,280	933,251	5,123,364	3,354,463	40,000
<u>TOTAL CAPITAL IN MUNICIPAL STATIONS</u> .....	517,380,072	193,767	17,439,494	10,454,259	8,829,736
Generation .....	231,949,538	126,886	13,402,864	4,398,144	4,691,736
Transmission and distribution .....	252,816,029	47,236	3,432,619	5,423,112	3,636,736
General .....	32,614,505	19,645	604,011	633,003	501,260
Non-generating stations .....	121,226,204	...	1,551,994	1,422,153	2,532,736
Generating stations .....	396,153,868	193,767	15,887,500	9,032,106	6,296,736
Hydraulic stations .....	376,268,446	...	15,349,257	5,384,887	5,990,736
Fuel stations .....	19,885,422	193,767	538,243	3,647,219	306,736
<u>TOTAL CAPITAL IN NON-GENERATING STATIONS</u> .....	159,930,536	7,000	7,577,597	3,610,403	3,193,736
Generation .....	3,741,714	...	1,705,665	405,110	696,736
Transmission and distribution .....	134,121,723	7,000	4,377,802	2,550,214	2,322,736
General .....	22,067,099	...	1,494,130	655,079	174,736
<u>TOTAL CAPITAL IN GENERATING STATIONS</u> .....	1,337,399,695	1,250,867	25,258,844	30,048,463	647,512,753
Generation .....	895,731,046	660,597	19,307,917	22,724,622	454,731,736
Transmission and distribution .....	366,184,801	509,281	5,129,948	6,517,678	149,193,753
General .....	75,483,848	80,989	820,979	806,163	43,587,753
Hydraulic stations .....	1,293,724,993	123,849	19,597,237	23,046,781	647,165,753
Fuel stations .....	43,674,702	1,127,018	5,661,607	7,001,682	346,736
<u>TOTAL CAPITAL</u> .....					
Average per H.P. of primary power .....	204	189	213	241	
Average per H.P. including auxiliary equipment .....	199	184	198	234	
Average per Kv.A. of dynamo capacity .....	241	244	249	284	
Average per Kv.A. including auxiliary equipment .....	235	242	251	276	
<u>GENERATION</u> .....					
Average cost per H.P. (including auxiliary equipment) -					
In all generating stations .....	119	97	125	165	
In hydraulic stations .....	121	132	179	177	
In fuel stations .....	77	95	58	117	

X - Capital invested in one hydraulic station in Saskatchewan included in Manitoba.

Tableau 4 - CAPITAL, 1937

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
929,867	X 80,873,518	X 25,433,991	27,660,539	109,973,152	<u>TOTAL CAPITAL</u>
35.73	5.40	1.70	1.35	7.34	Pourcentage du total pour le Canada
050,782	47,495,967	12,319,541	12,503,410	56,890,659	Génération
777,382	30,132,640	11,743,650	14,049,962	41,940,183	Transmission et distribution
121,703	3,194,911	1,365,800	1,107,167	11,142,330	Généralités
787,158	45,991,070	12,281,371	22,476,103	107,892,591	<u>TOTAL CAPITAL DANS LES USINES COMMERCIALES</u>
037,082	33,940,172	5,957,890	10,802,626	56,172,755	Génération
863,590	11,425,860	5,477,129	10,936,982	40,718,980	Transmission et distribution
866,486	625,038	846,352	736,495	11,000,856	Généralités
082,311	1,014,042	1,768,934	105,519	23,852,028	Usines non-génératrices
684,847	44,977,028	10,512,437	22,370,584	84,040,563	Usines génératrices
649,756	44,620,546	...	19,234,288	83,742,919	Usines hydrauliques
55,091	356,482	10,512,437	3,136,296	297,644	Usines à combustible
182,709	34,882,448	13,152,620	5,184,436	2,080,561	<u>TOTAL CAPITAL DANS LES USINES MUNICIPALES</u>
993,700	13,555,795	6,361,651	1,700,794	717,904	Génération
913,792	18,756,780	6,271,521	3,112,980	1,221,183	Transmission et distribution
255,217	2,569,873	519,448	370,672	141,474	Généralités
166,229	5,750,792	1,641,777	2,159,427	1,000,895	Usines non-génératrices
996,480	29,131,656	11,510,843	3,025,009	1,079,666	Usines génératrices
781,980	28,485,000	...	237,480	1,039,354	Usines hydrauliques
214,500	646,656	11,510,843	2,787,529	40,312	Usines à combustible
248,540	6,764,834	3,410,711	2,264,946	24,852,923	<u>TOTAL CAPITAL DANS LES USINES NON-GENERATRICES</u>
71,748	397,265	...	20,000	245,038	Génération
01,775	5,486,936	3,141,119	2,119,276	20,715,325	Transmission et distribution
75,017	880,633	269,592	125,670	3,892,560	Généralités
81,327	74,108,684	22,023,280	25,395,593	85,120,229	<u>TOTAL CAPITAL DANS LES USINES GENERATRICES</u>
59,034	47,098,702	12,319,541	12,483,410	56,645,621	Génération
75,607	24,695,704	8,607,531	11,930,686	21,224,838	Transmission et distribution
46,686	2,314,278	1,096,208	981,497	7,249,770	Généralités
31,736	73,105,546	...	19,471,768	84,782,273	Usines hydrauliques
49,591	1,003,138	22,023,280	5,923,825	337,956	Usines à combustible
					<u>TOTAL CAPITAL</u>
240	171	183	212	196	Moyenne par H.P. de la machinerie d'énergie primaire
236	180	183	184	180	Moyenne par H.P. y compris machinerie auxiliaire
300	211	216	263	252	Moyenne par Kv.A. de la capacité des dynamos
294	196	216	226	231	Moyenne par Kv.A. y compris machinerie auxiliaire
					<u>GENERATION</u>
					Moyenne par H.P. y compris machinerie auxiliaire-
119	94	88	83	93	Dans les usines génératrices
119	94	..	111	93	Dans les usines hydrauliques
118	146	88	42	89	Dans les usines à combustible

Capital engagé dans une usine hydraulique de la Saskatchewan inclus sous Manitoba.

Table 5 - REVENUE, 1937

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	143,546,643	301,841	5,690,004	/ 3,680,691	50,533
For domestic service .....	39,253,133	152,660	1,535,298	1,117,953	8,108
For commercial light .....	23,109,468	76,490	857,989	541,641	6,745
For power (small) .....	9,501,457	24,994	333,875	199,738	2,517
For power (large) .....	66,930,724	28,208	2,768,412	1,714,953	31,986
For street lighting .....	4,751,861	19,489	194,430	106,406	1,176
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	85,283,908	238,936	3,897,926	2,307,041	49,116
Non-generating .....	5,650,661	1,600	1,284,396	385,522	126
Generating .....	79,632,347	237,336	2,613,530	1,921,519	48,990
Hydraulic .....	74,497,541	23,420	582,764	1,472,258	48,974
Fuel .....	5,134,806	213,916	2,030,766	449,261	18
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	58,263,635	62,905	1,792,078	1,373,650	1,419
Non-generating .....	17,430,347	...	368,563	360,186	538
Generating .....	40,832,788	62,905	1,423,515	1,013,464	880
Hydraulic .....	35,663,421	...	1,259,416	556,547	815
Fuel .....	5,169,367	62,905	164,099	456,917	65
Revenue of non-generating stations .....	23,081,508	1,600	1,652,959	745,708	664
Revenue of generating stations .....	120,465,135	300,241	4,037,045	2,934,983	49,871
Revenue of hydraulic stations .....	110,160,962	23,420	1,842,180	2,028,805	49,789
Revenue of fuel stations .....	10,304,173	276,821	2,194,865	906,178	81
Average revenue per H.P. of primary power .....	19.55	45.27	36.97	26.39	14
Average revenue per H.P. in main and auxiliary plants.	19.04	44.18	34.22	25.54	14
Average revenue per Kv.A. of dynamo capacity .....	23.13	58.64	43.19	31.05	16
Average revenue per Kv.A. in main and auxiliary plants	22.52	58.10	40.01	30.18	16
Average revenue per kilowatt hour consumed ..... Cents	.52	4.63	1.27	.73	
Average revenue per domestic service customer .....	26.17	33.59	26.40	26.87	19
Average revenue per commercial light customer .....	91.59	69.03	87.81	86.17	96
Average revenue per small power customer .....	229.42	185.14	165.61	192.98	208
Average revenue per large power customer .....	6,649.19	1,084.92	19,916.63	10,457.03	26,500
Average revenue per kilowatt hour - domestic and farm service ..... Cents	1.96	6.84	4.84	4.76	3
Average revenue per kilowatt hour- commercial light ..... Cents	2.41	5.89	4.98	3.44	2

/ Affected by power purchased from another province.

X Adjusted for power purchased from Quebec plants on the basis of 88 kw.h. per h.p. per week.



Tableau 5 - RECETTES, 1937

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
58,933,701	7,679,888	4,665,244	5,175,126	13,141,229	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
17,718,464	3,122,397	1,852,505	1,865,520	3,779,392	Pour éclairage domestique
7,976,104	1,427,223	1,295,400	1,466,251	2,722,551	Pour éclairage commercial
3,959,769	337,817	659,547	645,925	821,820	Pour force motrice (petite)
27,235,156	2,555,041	583,288	920,493	5,395,635	Pour force motrice (grosse)
2,044,208	237,410	274,506	276,937	421,851	Pour éclairage des rues
1,169,462	3,767,798	1,726,377	2,444,987	12,445,386	<u>RECETTES DES USINES COMMERCIALES</u>
1,729,871	144,716	139,984	72,244	3,092,157	Non-génératrices
9,459,591	3,623,082	1,586,393	2,372,743	9,353,229	Génératrices
9,428,129	3,555,947	...	1,718,332	9,248,071	Hydrauliques
11,462	67,135	1,586,393	654,411	105,158	A combustible
7,764,239	3,912,090	2,938,867	2,730,139	695,843	<u>RECETTES DES USINES MUNICIPALES</u>
3,523,194	748,302	623,733	923,389	393,060	Non-génératrices
4,241,045	3,163,788	2,315,134	1,806,750	302,783	Génératrices
4,153,241	2,948,237	...	41,785	266,212	Hydrauliques
87,804	215,551	2,315,134	1,764,965	36,571	A combustible
5,253,065	893,018	763,717	995,633	3,485,217	Recettes des usines non-génératrices
3,680,636	6,786,870	3,901,527	4,179,493	9,656,012	Recettes des usines génératrices
3,581,370	6,504,184	...	1,760,117	9,514,283	Recettes des usines hydrauliques
99,266	282,686	3,901,527	2,419,376	141,729	Recettes des usines à combustible
21.87	16.22	33.49	39.71	23.46	Moyenne de recettes par H.P. de machinerie primaire
21.54	15.22	33.49	34.36	21.53	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
27.60	20.04	39.60	49.28	30.09	Moyenne de recettes par Kv.A. de capacité de dynamos
27.16	18.64	39.60	42.25	27.56	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
.69	.45	3.17	2.32	.73	Moyenne de recettes par Kw. heure (cents)
26.84	40.81	39.73	30.52	26.22	Moyenne de recettes par abonnés d'éclairage domestique
88.23	85.85	92.06	79.80	106.08	Moyenne de recettes par abonnés d'éclairage commercial
306.98	125.12	231.91	147.00	246.72	Moyenne de recettes par abonnés pour petite force motrice
770.37	938.66	2,931.10	2,894.63	3,021.07	Moyenne de recettes par abonnés pour grosse force motrice
1.51	1.03	4.98	5.28	2.81	Moyenne de recettes par Kw. heure - service domestique et de ferme (cents)
1.71	1.93	5.94	4.78	2.83	Moyenne de recettes par Kw. heure - service commercial (cents)

ffecté par énergie achetée d'une autre province.

ajusté pour achats de courant des usines du Québec sur une base de 88 kw.h. par h.p. par semaine.

Table 6 - EXPENSES, 1937

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>TOTAL EXPENSES</u> .....	84,185,082	140,445	3,766,680	1,730,376	20,501,966
Per cent of total for Canada .....	100.00	0.17	4.47	2.06	24.35
Salaries and wages .....	25,623,767	64,194	1,126,499	550,467	6,227,555
Fuel .....	2,582,729	51,667	1,067,465	207,581	24,245
Taxes .....	9,843,801	23,118	563,993	104,825	5,376,922
Cost of power .....	46,134,785	1,464	1,208,723	867,503	8,873,246
<u>TOTAL FOR COMMERCIAL STATIONS</u> .....	41,132,931	119,406	2,928,136	902,894	19,898,639
Salaries and wages .....	12,654,750	55,525	774,298	303,857	5,958,857
Fuel .....	1,598,461	39,299	1,034,712	101,421	2,924
Taxes .....	9,256,477	23,118	357,188	104,482	5,362,137
Cost of power .....	17,623,243	1,464	761,938	393,134	8,574,741
Non-generating stations .....	8,618,492	1,474	1,445,578	586,111	61,036
Generating stations .....	32,514,439	117,932	1,482,558	316,783	19,837,603
Hydraulic stations .....	29,762,376	10,893	193,040	101,664	19,830,311
Fuel stations .....	2,752,063	107,039	1,289,518	215,119	7,292
<u>TOTAL FOR MUNICIPAL STATIONS</u> .....	43,052,151	21,037	838,544	827,482	603,327
Salaries and wages .....	12,969,017	8,669	352,201	246,610	268,718
Fuel .....	984,268	12,368	32,753	106,160	21,319
Taxes .....	587,324	...	6,805	343	14,785
Cost of power .....	28,511,542	...	446,785	474,369	298,505
Non-generating stations .....	29,451,950	...	530,814	390,899	382,010
Generating stations .....	13,600,201	21,037	307,730	436,583	221,317
Hydraulic stations .....	11,644,432	...	230,075	262,226	184,598
Fuel stations .....	1,955,769	21,037	77,655	174,357	36,719
<u>TOTAL EXPENSES FOR NON GENERATING STATIONS</u> .....	38,070,442	1,474	1,976,392	977,010	443,046
Salaries and wages .....	7,646,955	...	509,682	237,665	136,356
Fuel .....	50,975	...	50,667	...	...
Taxes .....	1,173,058	10	238,375	50,834	1,802
Cost of power .....	29,199,474	1,464	1,177,668	688,511	304,908
<u>TOTAL EXPENSES FOR GENERATING STATIONS</u> .....	46,114,640	138,969	1,790,288	753,366	20,058,920
Salaries and wages .....	17,976,832	64,194	616,817	312,802	6,091,215
Fuel .....	2,531,754	51,667	1,016,798	207,581	24,245
Taxes .....	8,670,743	23,108	125,618	53,991	5,375,121
Cost of power .....	16,935,311	...	31,055	178,992	8,568,338
Hydraulic stations .....	41,406,808	10,893	423,115	363,890	20,014,900
Fuel stations .....	4,707,832	128,076	1,367,173	389,476	44,011

Tableau 6 - DEPENSES, 1937

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
42,401,898	2,615,604	2,511,884	2,287,770	8,228,461	<u>TOTAL DES DEPENSES</u>
50.37	3.11	2.98	2.72	9.77	Pourcentage du total pour le Canada
11,306,372	1,852,569	849,028	921,715	2,725,368	Salaires et gages
50,681	72,375	761,564	287,265	59,888	Combustible
1,587,691	202,917	172,150	309,456	1,702,729	Taxes
29,457,154	487,743	729,142	769,334	3,740,476	Achat d'énergie électrique
6,607,274	1,086,022	840,559	897,857	7,852,144	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,504,685	711,707	334,501	420,080	2,591,260	Salaires et gages
7,547	14,423	269,276	78,026	50,833	Combustible
1,241,748	116,504	123,575	224,996	1,702,729	Taxes
3,853,294	243,388	113,207	174,755	3,507,322	Achat d'énergie électrique
1,416,812	277,342	106,782	46,119	4,677,238	Usines non-génératrices
5,190,462	808,680	733,777	851,738	3,174,906	Usines génératrices
5,185,010	771,687	...	553,025	3,116,746	Usines hydrauliques
5,452	36,993	733,777	298,713	58,160	Usines à combustible
5,794,624	1,529,582	1,671,325	1,389,913	376,317	<u>TOTAL POUR LES USINES MUNICIPALES</u>
8,801,687	1,140,862	514,527	501,635	134,108	Salaires et gages
43,134	57,952	492,288	209,239	9,055	Combustible
345,943	86,413	48,575	84,460	...	Taxes
8,603,860	244,355	615,935	594,579	233,154	Achat d'énergie électrique
9,553,039	343,931	704,230	846,044	300,983	Usines non-génératrices
8,641,585	1,185,651	967,095	543,869	75,334	Usines génératrices
8,614,561	1,082,364	...	11,798	58,810	Usines hydrauliques
27,024	103,287	967,095	532,071	16,524	Usines à combustible
3,369,851	621,273	811,012	892,163	4,978,221	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
3,039,428	224,148	104,852	197,581	1,197,243	Salaires et gages
...	308	...	...	...	Combustible
141,136	14,156	51,610	63,400	611,735	Taxes
3,189,287	382,661	654,550	631,182	3,169,243	Achat d'énergie électrique
3,032,047	1,994,331	1,700,872	1,395,607	3,250,240	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
286,944	1,628,421	744,176	724,134	1,528,125	Salaires et gages
50,681	72,067	761,564	287,265	59,888	Combustible
446,555	188,761	120,540	246,056	1,090,994	Taxes
267,867	105,082	74,592	138,152	571,233	Achat d'énergie électrique
399,571	1,854,051	...	564,823	3,175,556	Usines hydrauliques
32,476	140,280	1,700,872	830,784	74,684	Usines à combustible



Table 7 - EMPLOYEES, 1937

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	17,018	62	1,005	490	4,283
Per cent of total for Canada .....	100.00	.36	5.91	2.88	25.11
Officers, clerks, other salaried employees, etc....	6,970	33	333	233	1,294
Employees on wages .....	10,048	29	672	257	2,989
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	8,752	53	656	282	4,066
Officers, clerks, other salaried employees, etc. ..	2,944	24	195	108	1,198
Employees on wages .....	5,808	29	461	174	2,871
Non-generating .....	1,299	..	331	136	1,198
Generating .....	7,453	53	325	146	4,044
Hydraulic .....	6,750	11	171	63	4,044
Fuel .....	703	42	154	83	1,198
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	8,266	9	349	208	2,198
Officers, clerks, other salaried employees, etc. ..	4,026	9	138	125	998
Employees on wages .....	4,240	..	211	83	1,198
Non-generating .....	3,957	..	87	71	898
Generating .....	4,309	9	262	137	1,298
Hydraulic .....	3,677	..	227	83	1,298
Fuel .....	632	9	35	54	898
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	5,256	..	418	207	1,096
Officers, clerks, other salaried employees, etc. ..	2,728	..	193	105	598
Employees on wages .....	2,528	..	225	102	598
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	11,762	62	587	283	4,170
Officers, clerks, other salaried employees, etc. ..	4,242	33	140	128	1,242
Employees on wages .....	7,520	29	447	155	2,928
Hydraulic .....	10,427	11	398	146	4,166
Fuel .....	1,335	51	189	137	1,198

Tableau 7 - EMPLOYES, 1957

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
6,881	1,346	572	605	1,774	<u>TOTAL DU PERSONNEL OCCUPE</u>
40.43	7.91	3.36	3.56	10.42	Pourcentage du total pour le Canada
2,921	840	267	320	729	Administrateurs, directeurs, commis et tous employés des bureaux
3,960	506	305	285	1,045	Ouvriers et journaliers
1,018	480	259	268	1,670	<u>PERSONNEL DES USINES COMMERCIALES</u>
282	184	129	167	660	Administrateurs, directeurs, commis et tous employés des bureaux
736	296	130	101	1,010	Ouvriers et journaliers
43	16	12	11	753	Non-génératrices
975	464	247	257	937	Génératrices
971	440	..	136	913	Hydrauliques
4	24	247	121	24	Combustible
5,863	866	313	337	104	<u>PERSONNEL DES USINES MUNICIPALES</u>
2,639	656	138	153	69	Administrateurs, directeurs, commis et tous employés des bureaux
3,224	210	175	184	35	Ouvriers et journaliers
3,287	183	54	132	55	Non-génératrices
2,576	683	259	205	49	Génératrices
2,564	631	...	8	43	Hydrauliques
12	52	259	197	6	Combustible
3,330	199	66	143	788	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,663	103	38	87	485	Administrateurs, directeurs, commis et tous employés des bureaux
1,667	96	28	56	303	Ouvriers et journaliers
3,551	1,147	506	462	986	<u>PERSONNEL DES USINES GENERATRICES</u>
1,258	737	229	233	244	Administrateurs, directeurs, commis et tous employés des bureaux
2,293	410	277	229	742	Ouvriers et journaliers
3,535	1,071	..	144	956	Hydrauliques
16	76	506	318	30	Combustible

Table 8 - NUMBER OF CUSTOMERS, 1937

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>NUMBER OF CUSTOMERS</u> .....	1,805,995	5,824	70,172	49,128	491,104
Per cent of total for Canada .....	100.00	0.32	3.89	2.72	27.19
Domestic service .....	1,500,123	4,545	58,165	41,604	407,155
Commercial light .....	252,305	1,109	9,771	6,286	70,000
Power (small) .....	41,415	135	2,016	1,035	12,061
Power (large) .....	10,066	26	139	164	1,207
Street lighting .....	2,081	10	81	39	680
<u>COMMERCIAL STATIONS</u> .....	833,711	4,638	45,649	23,494	453,297
Domestic service .....	677,050	3,695	37,838	18,954	373,777
Commercial light .....	130,288	843	6,402	3,752	66,578
Power (small) .....	20,555	67	1,287	704	11,152
Power (large) .....	4,595	25	77	54	1,141
Street lighting .....	1,223	8	45	20	649
Non-generating .....	181,157	117	35,396	14,595	3,681
Generating .....	652,554	4,521	10,253	8,899	449,616
Hydraulic .....	601,704	741	6,636	583	449,223
Fuel .....	50,850	3,780	3,617	8,306	393
<u>MUNICIPAL STATIONS</u> .....	972,284	1,186	24,523	25,644	37,807
Domestic service .....	823,078	850	20,327	22,650	33,378
Commercial light .....	122,017	265	3,369	2,534	3,423
Power (small) .....	20,860	68	729	331	909
Power (large) .....	5,471	1	62	110	66
Street lighting .....	858	2	36	19	81
Non-generating .....	708,190	...	17,512	13,338	19,137
Generating .....	264,094	1,186	7,011	12,306	18,670
Hydraulic .....	193,524	...	3,486	7,914	17,664
Fuel .....	70,570	1,186	3,525	4,392	1,006
<u>NON GENERATING STATIONS</u> .....	889,347	117	52,908	27,933	22,818
Domestic service .....	744,805	88	43,958	23,335	20,000
Commercial light .....	121,260	28	7,278	3,919	2,160
Power (small) .....	17,961	...	1,562	554	597
Power (large) .....	4,694	...	66	102	19
Street lighting .....	627	1	44	23	42
<u>GENERATING STATIONS</u> .....	916,648	5,707	17,264	21,195	468,286
Hydraulic stations .....	795,223	741	10,122	8,497	466,887
Domestic service .....	664,975	623	8,368	7,720	386,114
Commercial light .....	105,772	115	1,442	651	67,504
Power (small) .....	18,570	...	238	85	11,447
Power (large) .....	4,842	...	48	32	1,181
Street lighting .....	1,069	3	26	9	63
<u>Fuel stations</u> .....	121,420	4,966	7,142	12,698	1,397
Domestic service .....	90,348	3,834	5,839	10,549	1,047
Commercial light .....	25,273	965	1,051	1,716	33
Power (small) .....	4,884	135	216	396	1
Power (large) .....	530	26	25	30	
Street lighting .....	385	6	11	7	
Average number of domestic service customers per 100 of population .....	13.50	4.89	10.73	9.46	12.9



Tableau 8 - NOMBRE D'USAGERS, 1937

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
767,628	98,696	64,046	84,399	174,998	<u>NOMBRE D'USAGERS</u>
42.50	5.47	3.55	4.67	9.69	Pourcentage du total pour le Canada
660,262	76,516	46,630	61,121	144,130	Service domestique
90,403	16,624	14,071	18,375	25,666	Eclairage commercial
12,899	2,700	2,844	4,394	3,331	Force motrice (petite)
3,505	2,722	199	318	1,796	Force motrice (grosse)
559	134	302	191	85	Eclairage des rues
67,478	30,026	23,900	28,713	156,526	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
56,562	21,628	16,761	18,513	129,322	Service domestique
9,403	6,869	5,940	7,780	22,721	Eclairage commercial
1,198	406	882	2,178	2,681	Force motrice (petite)
253	1,099	148	66	1,732	Force motrice (grosse)
62	24	169	176	70	Eclairage des rues
4,300	6,808	2,711	1,860	111,699	Non-génératrices
63,178	23,218	21,189	26,853	44,837	Génératrices
62,894	21,855	...	16,528	43,244	Hydrauliques
284	1,363	21,189	10,325	1,593	Combustible
00,150	68,670	40,146	55,686	18,472	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
03,700	54,888	29,869	42,608	14,908	Service domestique
81,000	9,755	8,131	10,595	2,945	Eclairage commercial
11,701	2,294	1,962	2,216	650	Force motrice (petite)
3,252	1,623	51	252	54	Force motrice (grosse)
497	110	133	15	15	Eclairage des rues
89,524	14,951	14,402	25,694	13,632	Non-génératrices
10,626	53,719	25,744	29,992	4,840	Génératrices
09,517	50,064	...	741	4,138	Hydrauliques
1,109	3,655	25,744	29,251	702	Combustible
03,824	21,759	17,113	27,554	125,321	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
1,934	17,376	12,665	21,706	103,743	Service domestique
8,037	3,544	3,473	4,816	18,005	Eclairage commercial
0,797	596	892	974	1,989	Force motrice (petite)
2,751	141	29	45	1,541	Force motrice (grosse)
305	102	54	13	43	Eclairage des rues
3,804	76,937	46,933	56,845	49,677	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
2,411	71,919	...	17,269	47,382	Usines hydrauliques
7,166	55,526	...	10,803	38,655	Service domestique
2,176	11,956	...	4,766	7,162	Eclairage commercial
2,068	1,872	...	1,567	1,293	Force motrice (petite)
751	2,555	...	30	240	Force motrice (grosse)
250	10	...	103	32	Eclairage des rues
3,393	5,018	46,933	39,576	2,295	<u>Usines à combustible</u>
1,162	3,614	33,965	28,612	1,732	Service domestique
190	1,124	10,598	8,793	499	Eclairage commercial
34	232	1,952	1,853	49	Force motrice (petite)
3	26	170	243	5	Force motrice (grosse)
4	22	248	75	10	Eclairage des rues
7.79	10.67	4.97	7.96	19.09	Moyenne de consommateurs d'éclairage électrique par 100 habitants

Table 9 - POLE LINE MILEAGE, 1937

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	63,035	226	2,847	2,483	12,740
Per cent of total for Canada .....	100.00	.36	4.52	3.94	20.21
Miles of steel towers .....	4,622	...	21	214	1,111
Miles of steel poles .....	279	...	...	...	21
Miles of wooden poles .....	55,755	224	2,819	2,268	10,765
Miles of concrete poles .....	562	...	...	...	...
Miles of underground and submarine cables .....	1,917	2	7	1	64
<u>TOTAL POLE LINE MILEAGE IN COMMERCIAL STATIONS</u> .....	28,332	203	1,635	656	12,230
Non-generating .....	4,448	10	669	263	26
Generating .....	23,884	193	966	393	11,964
Hydraulic .....	21,276	54	766	170	11,955
Fuel .....	2,608	139	200	223	1
<u>TOTAL POLE LINE MILEAGE IN MUNICIPAL STATIONS</u> .....	34,703	23	1,212	1,327	50
Non-generating .....	9,721	...	414	203	16
Generating .....	24,982	23	798	1,624	33
Hydraulic .....	21,663	...	709	736	31
Fuel .....	3,319	23	89	888	2
<u>TOTAL POLE LINE MILEAGE IN NON GENERATING STATIONS</u> ...	14,169	10	1,083	466	43
<u>TOTAL POLE LINE MILEAGE IN GENERATING STATIONS</u> .....	48,866	216	1,764	2,017	12,300
Hydraulic .....	42,339	54	1,475	906	12,270
Fuel .....	5,927	162	289	1,111	30

Table 10 - AUXILIARY PLANT EQUIPMENT, 1937

<u>TOTAL PRIMARY POWER</u> .....	H.P.	197,350	165	12,338	4,625	36,280
Per cent of total for Canada .....		100.00	.08	6.25	2.34	18.3
Steam reciprocating engines .....	No.	33	1	9	3	...
Total capacity .....	H.P.	13,616	75	3,913	1,025	...
Steam turbines .....	No.	46	...	3	4	...
Total capacity .....	H.P.	174,279	...	7,390	3,600	36,280
Gas and oil engines .....	No.	49	2	6	...	...
Total capacity .....	H.P.	9,455	90	1,035	...	...
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	167,939	48	10,464	3,435	33,110
<u>COMMERCIAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	133,282	165	11,495	4,625	25,500
Steam reciprocating engines .....	No.	21	1	7	3	...
Total capacity .....	H.P.	8,918	75	3,490	1,025	...
Steam turbines .....	No.	37	...	3	4	...
Total capacity .....	H.P.	117,415	...	7,390	3,600	25,500
Gas and oil engines .....	No.	33	2	2	...	...
Total capacity .....	H.P.	6,949	90	615	...	...
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	111,712	48	9,803	3,435	23,110
<u>MUNICIPAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	64,068	...	843	...	10,700
Steam reciprocating engines .....	No.	12	...	2	...	...
Total capacity .....	H.P.	4,698	...	423	...	...
Steam turbines .....	No.	9	...	...	...	...
Total capacity .....	H.P.	56,864	...	...	...	10,700
Gas and oil engines .....	No.	16	...	4	...	...
Total capacity .....	H.P.	2,506	...	420	...	...
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	56,127	...	661	...	10,700

Tableau 9 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1937

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
28,276	3,323	3,705	4,093	5,342	<u>LONGUEUR (EN MILLES) DES LIGNES SUR PÔTEAUX</u>
44.86	5.27	5.88	6.49	8.47	Pourcentage du total pour tout le Canada
2,467	743	...	27	39	Milles de pylones d'acier
62	...	...	...	...	Milles de poteaux d'acier
24,197	2,552	3,680	4,009	5,237	Milles de poteaux de bois
562	...	...	...	...	Milles de poteaux de ciment
988	28	25	57	66	Milles de cables souterrains et sous-marins
2,542	1,281	1,713	3,273	4,796	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
213	213	648	42	2,124	Non-génératrices
2,329	1,068	1,065	3,231	2,672	Génératrices
2,321	988	...	2,403	2,618	Hydrauliques
8	80	1,065	828	54	A combustible
25,734	2,042	1,992	820	546	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
6,710	1,252	184	391	399	Non-génératrices
19,024	790	1,808	429	147	Génératrices
18,996	740	...	35	129	Hydrauliques
28	50	1,808	394	18	A combustible
3,923	1,465	832	433	2,523	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
21,853	1,858	2,873	3,660	2,819	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GENERATRICES</u>
21,317	1,728	...	2,438	2,747	Hydrauliques
36	130	2,873	1,222	72	A combustible

Tableau 10 - OUTILLAGE AUXILIAIRE, 1937

2,421	31,090	...	20,303	50,111	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
21.50	15.75	...	10.29	25.40	Pourcentage du total pour tout le Canada
5	1	...	8	5	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,700	1,750	...	3,853	1,275	Capacité totale ..... H.P.
5	7	...	4	15	Turbines à vapeur ..... Nomb.
8,500	28,490	...	15,000	45,075	Capacité totale ..... H.P.
7	7	...	9	16	Moteurs à gaz et à pétrole ..... Nomb.
2,221	850	...	1,450	3,761	Capacité totale ..... H.P.
4,441	28,711	...	17,472	40,143	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
0,825	12,000	...	20,063	48,536	<u>USINES COMMERCIALES</u>
...	...	...	8	1	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
...	...	...	3,853	450	Machines à vapeur, à mouvement alternatif ..... Nomb.
3	3	...	4	14	Capacité totale ..... H.P.
3,000	12,000	...	15,000	44,925	Turbines à vapeur ..... Nomb.
5	...	...	7	15	Capacité totale ..... H.P.
1,825	...	...	1,210	3,161	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
7,876	11,250	...	17,287	38,888	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
1,596	19,090	...	240	1,575	<u>USINES MUNICIPALES</u>
5	1	...	...	4	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
7,700	1,750	...	...	825	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	4	...	...	1	Capacité totale ..... H.P.
1,500	16,490	...	...	150	Turbines à vapeur ..... Nomb.
2	7	...	2	1	Capacité totale ..... H.P.
396	850	...	240	600	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
5,565	17,461	...	185	1,255	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.



Table 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1937.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL PRIMARY POWER</u> ..... H.P.	7,539,435	6,332	166,258	144,124	3,549,65
Per cent of total for Canada .....	100.00	0.08	2.21	1.81	47.0
Water wheels and turbines ..... No.	819	8	54	17	26
Total capacity ..... H.P.	7,023,242	432	85,169	106,010	3,510,75
Steam reciprocating engines ..... No.	77	1	10	7	
Total capacity ..... H.P.	24,343	75	4,413	4,025	2
Steam turbines ..... No.	111	3	18	10	
Total capacity ..... H.P.	450,767	5,000	74,923	33,680	36,22
Gas and oil engines ..... No.	407	8	23	6	
Total capacity ..... H.P.	41,089	1,325	1,753	409	2,64
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	6,374,304	5,195	142,198	121,963	3,155,47
Per cent of total for Canada .....	100.00	0.08	2.23	1.92	49.5
Dynamos, A.C. .... No.	1,205	16	98	34	27
Total capacity ..... Kv.A.	6,368,487	5,187	141,848	120,893	3,155,44
Dynamos, D.C. .... No.	188	1	6	6	
Total capacity ..... Kw.	5,817	8	350	1,070	3
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	5,336,811	5,597	91,333	114,884	3,506,17
Water wheels and turbines ..... No.	542	8	18	11	23
Total capacity ..... H.P.	5,047,253	432	14,244	93,150	3,480,52
Steam reciprocating engines ..... No.	46	1	8	7	
Total capacity ..... H.P.	14,767	75	3,990	4,025	2
Steam turbines ..... No.	68	3	15	7	
Total capacity ..... H.P.	250,875	5,000	72,265	17,300	25,50
Gas and oil engines ..... No.	297	2	9	6	
Total capacity ..... H.P.	23,916	90	834	409	12
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	4,608,155	4,178	80,579	97,640	3,120,24
Dynamos, A.C. .... No.	766	10	43	25	24
Total capacity ..... Kv.A.	4,603,895	4,170	80,229	96,570	3,120,21
Dynamos, D.C. .... No.	167	1	6	6	
Total capacity ..... Kw.	4,260	8	350	1,070	3
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	2,202,624	1,235	74,925	29,240	43,47
Water wheels and turbines ..... No.	277	...	36	6	2
Total capacity ..... H.P.	1,975,989	...	70,925	12,860	30,23
Steam reciprocating engines ..... No.	31	...	2	...	...
Total capacity ..... H.P.	9,576	...	423	...	...
Steam turbines ..... No.	43	...	3	3	
Total capacity ..... H.P.	199,892	...	2,658	16,380	10,72
Gas and oil engines ..... No.	110	6	14	...	
Total capacity ..... H.P.	17,167	1,235	919	...	2,52
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	1,766,149	1,017	61,619	24,323	35,22
Dynamos, A.C. .... No.	439	6	55	9	3
Total capacity ..... Kv.A.	1,764,592	1,017	61,619	24,323	35,22
Dynamos, D.C. .... No.	21	...	...	...	...
Total capacity ..... Kw.	1,557	...	...	...	...

Tableau 11 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1937

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
2,267,784 30.08	504,545 6.69	139,321 1.85	150,613 2.00	610,305 8.09	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada
341	41	...	18	76	Turbines et roues hydrauliques ..... Nomb.
2,223,948	469,300	...	69,920	557,707	Capacité totale ..... H.P.
14	6	2	26	10	Machines à vapeur, à mouvement alternatif ..... Nomb.
2,175	2,403	1,150	8,333	1,744	Capacité totale ..... H.P.
5	9	23	19	16	Turbines à vapeur ..... Nomb.
38,500	29,740	119,130	67,995	45,575	Capacité totale ..... H.P.
14	46	194	72	41	Moteurs à gaz et à pétrole ..... Nomb.
3,161	3,102	19,041	4,365	5,279	Capacité totale ..... H.P.
820,327	411,966	117,806	122,491	476,887	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada
28.56	6.46	1.85	1.92	7.48	Dynamos, C.A. .... Nomb.
365	91	115	79	132	Capacité totale ..... Kv.A.
820,257	411,772	116,655	119,763	476,672	Dynamos, C.D. .... Nomb.
4	6	100	51	11	Capacité totale ..... Kw.
70	194	1,151	2,728	215	
					<u>USINES COMMERCIALES</u>
526,249	339,884	55,402	98,933	598,355	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
161	22	...	16	67	Turbines et roues hydrauliques ..... Nomb.
515,209	326,800	...	68,960	547,937	Capacité totale ..... H.P.
4	...	...	21	4	Machines à vapeur, à mouvement alternatif ..... Nomb.
165	...	...	5,623	864	Capacité totale ..... H.P.
3	3	10	6	15	Turbines à vapeur ..... Nomb.
9,000	12,000	44,085	20,300	45,425	Capacité totale ..... H.P.
6	21	144	68	37	Moteurs à gaz et à pétrole ..... Nomb.
1,875	1,084	11,317	4,050	4,129	Capacité totale ..... H.P.
441,255	272,282	45,649	78,048	468,278	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
167	43	65	58	112	Dynamos, C.A. .... Nomb.
441,220	272,243	44,690	76,495	468,063	Capacité totale ..... Kv.A.
3	3	86	48	11	Dynamos, C.D. .... Nomb.
35	39	959	1,553	215	Capacité totale ..... Kw.
					<u>USINES MUNICIPALES</u>
741,535	164,661	83,919	51,680	11,950	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
180	19	...	2	9	Turbines et roues hydrauliques ..... Nomb.
708,739	142,500	...	960	9,770	Capacité totale ..... H.P.
10	6	2	5	6	Machines à vapeur, à mouvement alternatif ..... Nomb.
2,010	2,403	1,150	2,710	880	Capacité totale ..... H.P.
2	6	13	13	1	Turbines à vapeur ..... Nomb.
29,500	17,740	75,045	47,695	150	Capacité totale ..... H.P.
8	19	50	4	4	Moteurs à gaz et à pétrole ..... Nomb.
1,286	2,018	7,724	315	1,150	Capacité totale ..... H.P.
379,072	139,684	72,157	44,443	8,609	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
198	48	50	21	20	Dynamos, C.A. .... Nomb.
379,037	139,529	71,965	43,268	8,609	Capacité totale ..... Kv.A.
1	3	14	3	...	Dynamos, C.D. .... Nomb.
35	155	192	1,175	...	Capacité totale ..... Kw.



Table 12 - MAIN PLANT EQUIPMENT, 1937

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	100.00	0.09	2.10	1.90	47.85
Water wheels and turbines ..... No.	819	8	54	17	264
Total capacity ..... H.P.	7,023,242	432	85,169	106,010	3,510,756
Steam reciprocating engines ..... No.	44	...	1	4	...
Total capacity ..... H.P.	10,727	...	500	3,000	...
Steam turbines ..... No.	65	3	15	6	...
Total capacity ..... H.P.	276,488	5,000	67,533	30,080	...
Gas and oil engines ..... No.	358	6	17	6	7
Total capacity ..... H.P.	31,628	1,235	719	409	2,600
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	0.08	2.12	1.91	50.31
Dynamos, A.C. .... No.	1,089	15	82	27	267
Total capacity ..... Kv.A.	6,202,048	5,139	131,684	117,458	3,122,315
Dynamos, D.C. .... No.	185	1	5	6	3
Total capacity ..... Kw.	4,417	8	50	1,070	31
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	100.00	0.10	1.53	2.12	66.89
Water wheels and turbines ..... No.	542	8	18	11	239
Total capacity ..... H.P.	5,047,253	432	14,244	93,150	3,480,521
Steam reciprocating engines ..... No.	25	...	1	4	...
Total capacity ..... H.P.	5,849	...	500	3,000	...
Steam turbines ..... No.	31	3	12	3	...
Total capacity ..... H.P.	133,460	5,000	64,875	13,700	...
Gas and oil engines ..... No.	264	...	7	6	2
Total capacity ..... H.P.	16,967	...	219	409	80
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	0.09	1.57	2.10	68.98
Dynamos, A.C. .... No.	687	9	33	18	237
Total capacity ..... Kv.A.	4,493,593	4,122	70,726	93,135	3,097,090
Dynamos, D.C. .... No.	164	1	5	6	3
Total capacity ..... Kw.	2,860	8	50	1,070	31
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	100.00	0.06	3.46	1.37	1.53
Water wheels and turbines ..... No.	277	...	36	6	25
Total capacity ..... H.P.	1,975,989	...	70,925	12,860	30,235
Steam reciprocating engines ..... No.	19	...	...	...	...
Total capacity ..... H.P.	4,878	...	...	...	...
Steam turbines ..... No.	34	...	3	3	...
Total capacity ..... H.P.	143,028	...	2,658	16,380	...
Gas and oil engines ..... No.	94	6	10	...	5
Total capacity ..... H.P.	14,661	1,235	499	...	2,520
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	0.06	3.56	1.42	1.48
Dynamos, A.C. .... No.	402	6	49	9	30
Total capacity ..... Kv.A.	1,708,465	1,017	60,958	24,323	25,225
Dynamos, D.C. .... No.	21	...	...	...	...
Total capacity ..... Kw.	1,557	...	...	...	...
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	0.01	1.20	1.54	52.56
Dynamos, A.C. .... No.	802	6	54	15	260
Total capacity ..... Kv.A.	5,935,525	372	71,397	91,038	3,120,151
Dynamos, D.C. .... No.	10	1	...	2	3
Total capacity ..... Kw.	459	8	...	325	31
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	1.76	22.29	10.04	0.80
Dynamos, A.C. .... No.	287	9	28	12	7
Total capacity ..... Kv.A.	266,723	4,767	60,287	26,420	2,164
Dynamos, D.C. .... No.	175	...	5	4	...
Total capacity ..... Kw.	3,958	...	50	745	...

X - Capacity of one hydraulic station in Saskatchewan included in Manitoba.



Tableau 12 - OUTILLAGE DES USINES PRINCIPALES, 1937

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
2,225,363 30.31 341	X 473,455 6.45 41	X 139,321 1.90 ...	130,310 1.77 18	560,194 7.63 76	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada
2,223,948 9 475 ...	469,300 5 653 2	...	69,920 18 4,480	557,707 5 469 1	Roues hydrauliques et turbines ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
...	1,250 33 7	119,130 194 19,041	52,995 63 2,915	500 25 1,513	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
1,785,886 28.77 349	383,255 6.18 76	117,806 1.90 115	105,019 1.69 60	436,744 7.04 98	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada
1,785,816 4 70	383,061 6 194	116,655 100 1,151	103,391 49 1,628	436,529 11 215	Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
					<u>USINES COMMERCIALES</u>
515,424 9.91 161	327,884 6.30 22	55,402 1.06 ...	78,870 1.52 16	549,819 10.57 67	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada
515,209 4 165	326,800 ...	...	68,960 13 1,770	547,937 3 414	Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
...	...	10 44,085	2 5,300	1 500	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P.
1 50	21 1,084	144 11,317	61 2,840	22 968	Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
433,379 9.64 160	261,032 5.80 40	45,649 1.02 65	60,761 1.35 41	429,390 9.55 84	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada
433,344 3 35	260,993 3 39	44,690 86 959	60,308 46 453	429,175 11 215	Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
					<u>USINES MUNICIPALES</u>
709,939 79.96 180	145,571 6.81 19	83,919 3.92 ...	51,440 2.40 2	10,375 0.49 9	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada
708,739 5 310	142,500 5 653	...	960 5 2,710	9,770 2 55	Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P.
...	2 1,250	13 75,045	13 47,695	...	Turbines à vapeur ..... Nomb. Capacité totale ..... H.P.
6 890	12 1,168	50 7,724	2 75	3 550	Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
352,507 79.09 189	122,223 7.15 36	72,157 4.22 50	44,258 2.59 19	7,354 0.43 14	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada
352,472 1 35	122,068 3 155	71,965 14 192	43,083 3 1,175	7,354 ... ...	Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
					<u>USINES HYDRAULIQUES</u>
784,809 50.07 335	379,600 6.39 41	...	53,200 0.90 14	434,853 7.33 77	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada
784,784 2 25	379,600 ... ...	...	53,200 ... ...	434,783 2 70	Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
					<u>USINES A COMBUSTIBLE</u>
1,077 0.40 14	3,655 1.35 35	117,806 43.52 115	51,819 19.14 46	1,891 0.70 21	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada
1,032 2 45	3,461 6 194	116,655 100 1,151	50,191 49 1,628	1,746 9 145	Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.

- Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.

Table 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1937

		Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>MAIN POWER</b>							
Gas engines and turbines	No.	819	8	54	17	284	34
	Total H.P.	7,023,242	432	85,169	106,010	3,510,756	2,223,948
Under 500 H.P.	No.	148	8	22	3	28	12
	Total H.P.	29,547	432	5,549	960	4,837	12,117
500 - 2,000 H.P.	No.	209	...	17	3	63	11
	Total H.P.	228,949	...	19,630	2,550	65,669	127,736
2,000 - 5,000 H.P.	No.	135	...	11	6	33	6
	Total H.P.	401,821	...	36,890	17,500	94,550	188,931
5,000 - 10,000 H.P.	No.	101	...	4	1	33	7
	Total H.P.	674,425	...	23,300	5,000	233,400	192,117
10,000 - 15,000 H.P.	No.	85	...	...	...	28	7
	Total H.P.	994,800	...	...	...	301,900	519,207
15,000 - 25,000 H.P.	No.	50	...	...	4	17	1
	Total H.P.	944,000	...	...	80,000	352,500	182,500
25,000 H.P. and up	No.	91	...	...	...	62	...
	Total H.P.	3,749,900	...	...	...	2,457,900	1,002,000
Steam reciprocating engines	No.	44	...	1	4	...	4
	Total H.P.	10,727	...	500	3,000	...	...
Under 500 H.P.	No.	36	...	...	1	...	4
	Total H.P.	4,267	...	...	100	...	...
500 H.P. and up	No.	8	...	1	3	...	...
	Total H.P.	6,460	...	500	2,900	...	...
Steam turbines	No.	65	3	15	6	...	...
	Total H.P.	273,488	5,000	67,533	30,380	...	...
Under 500 H.P.	No.	5	...	1	...	...	...
	Total H.P.	1,364	...	402	...	...	...
500 - 2,000 H.P.	No.	15	2	2	1	...	...
	Total H.P.	16,509	2,500	2,256	700	...	...
2,000 - 5,000 H.P.	No.	25	1	6	3	...	...
	Total H.P.	73,866	2,500	16,100	11,000	...	...
5,000 - 10,000 H.P. and up	No.	20	...	6	2	...	...
	Total H.P.	184,729	...	48,775	18,380	...	...
Gas and oil engines	No.	358	6	17	6	7	9
	Total H.P.	31,628	1,235	718	409	2,600	...
<b>SECONDARY POWER</b>							
Dynamos, A.C. and D.C.	No.	1,274	16	87	33	270	3
	Total Kv.A.	6,206,465	5,147	131,734	118,528	3,122,346	1,785,813
Dynamos, A.C.	No.	1,089	15	82	27	267	3
	Total Kv.A.	6,202,048	5,139	131,684	117,458	3,122,315	1,785,813
Under 50 Kv.A.	No.	91	3	9	...	5	1
	Total Kv.A.	2,641	99	270	...	154	...
50 - 200 Kv.A.	No.	160	7	13	5	12	4,000
	Total Kv.A.	17,283	678	1,336	548	1,273	...
200 - 500 Kv.A.	No.	130	2	16	1	24	...
	Total Kv.A.	40,694	612	5,063	375	8,288	12,200
500 - 1,000 Kv.A.	No.	130	1	9	4	37	45,000
	Total Kv.A.	93,878	625	6,695	2,750	27,000	...
1,000 - 5,000 Kv.A.	No.	265	2	27	11	53	1
	Total Kv.A.	603,555	3,125	66,145	28,475	112,295	228,300
5,000 - 10,000 Kv.A.	No.	112	...	8	2	25	344,000
	Total Kv.A.	782,797	...	52,175	15,310	166,020	...
10,000 - 15,000 Kv.A.	No.	71	...	...	...	32	257,000
	Total Kv.A.	769,825	...	...	...	333,660	...
15,000 - 25,000 Kv.A.	No.	55	...	...	4	20	154,000
	Total Kv.A.	1,043,500	...	...	70,000	409,250	...
25,000 Kv.A. and up	No.	75	...	...	...	59	739,000
	Total Kv.A.	2,847,875	...	...	...	2,064,375	...
Dynamos, D.C.	No.	185	1	5	6	5	...
	Total Kw.	4,417	8	50	1,070	31	...
Under 50 Kw.	No.	177	1	5	2	3	...
	Total Kw.	2,092	8	50	20	31	...
50 - 200 Kw.	No.	4	...	...	2	...	...
	Total Kw.	325	...	...	200	...	...
200 - 500 Kw.	No.	2	...	...	1	...	...
	Total Kw.	600	...	...	200	...	...
500 Kw. and up	No.	2	...	...	1	...	...
	Total Kw.	1,400	...	...	650	...	...



Tableau 13 - OUTILLAGE CLASSIFIÉ DES USINES PRINCIPALES, 1937

Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal	
473,455	139,321	130,510	560,194	5,203,529	2,138,556	<u>FORCE MOTRICE PRIMAIRE</u> ..... H.P.
41	...	18	76	542	277	<u>Turbines et roues hydrauliques</u> ..... Nomb.
469,300	...	69,920	557,707	5,047,253	1,975,989	Total H.P.
...	...	10	19	100	48	Moins de 500 H.P. .... Nomb.
...	...	1,920	3,566	17,013	12,534	Total H.P.
...	...	...	11	113	96	500 - 2,000 H.P. .... Nomb.
...	...	...	13,370	117,844	111,105	Total H.P.
4	...	2	13	91	44	2,000 - 5,000 H.P. .... Nomb.
12,800	...	8,000	43,146	276,271	125,550	Total H.P.
21	...	4	9	69	32	5,000 - 10,000 H.P. .... Nomb.
130,000	...	24,000	66,625	472,325	202,100	Total H.P.
6	...	...	8	58	27	10,000 - 15,000 H.P. .... Nomb.
79,500	...	...	95,000	654,400	340,200	Total H.P.
4	...	2	12	39	11	15,000 - 25,000 H.P. .... Nomb.
79,000	...	36,000	214,000	761,500	182,500	Total H.P.
6	...	...	4	72	19	25,000 et plus H.P. .... Nomb.
168,000	...	...	122,000	2,747,900	1,002,000	Total H.P.
5	2	18	5	25	19	<u>Machines à vapeur, à mouvement alternatif</u> Total H.P.
653	1,150	4,480	469	5,849	4,878	Moins de 500 H.P. .... Nomb.
5	1	15	5	21	15	Total H.P.
653	400	2,170	469	2,449	1,818	500 H.P. et plus .... Nomb.
...	1	3	...	4	4	Total H.P.
...	750	2,310	...	3,400	3,060	<u>Turbines à vapeur</u> .... Nomb.
2	23	15	1	31	34	Total H.P.
1,250	119,130	52,995	500	133,460	143,028	Moins de 500 H.P. .... Nomb.
1	1	2	...	...	5	Total H.P.
400	267	295	...	...	1,364	500 - 2,000 H.P. .... Nomb.
1	6	2	1	7	8	Total H.P.
850	7,703	2,000	500	8,233	8,276	2,000 - 5,000 H.P. .... Nomb.
...	8	7	...	14	11	Total H.P.
...	24,286	20,000	...	38,186	35,700	5,000 - 10,000 H.P. .... Nomb.
...	8	4	...	10	10	Total H.P.
...	86,874	30,700	...	37,041	97,688	<u>Moteurs à gaz et à pétrole</u> .... Nomb.
25	194	63	25	264	94	Total H.P.
2,252	19,041	2,915	1,516	16,967	14,661	<u>FORCE MOTRICE SECONDAIRE</u>
82	215	109	109	851	423	<u>Dynamos, C.A. et C.D.</u> .... Nomb.
383,255	117,806	105,019	436,744	4,496,443	1,710,022	Total Kv.A.
76	115	60	98	687	402	<u>Dynamos, C.A.</u> .... Nomb.
383,061	116,655	103,391	436,529	4,493,583	1,708,465	Total Kv.A.
16	28	10	13	59	39	Moins de 50 Kv.A. .... Nomb.
414	919	249	338	1,739	902	Total Kv.A.
15	37	18	18	103	57	50 - 200 Kv.A. .... Nomb.
1,296	4,292	2,054	1,716	10,618	6,665	Total Kv.A.
3	24	10	11	65	65	200 - 500 Kv.A. .... Nomb.
970	7,128	2,875	3,112	19,711	20,983	Total Kv.A.
1	5	3	7	70	60	500 - 1,000 Kv.A. .... Nomb.
781	3,261	2,088	4,888	49,840	44,038	Total Kv.A.
14	14	14	18	163	102	1,000 - 5,000 Kv.A. .... Nomb.
46,350	32,305	42,375	44,150	378,700	224,855	Total Kv.A.
11	4	2	14	68	44	5,000 - 10,000 Kv.A. .... Nomb.
70,750	25,000	11,250	97,700	472,625	310,172	Total Kv.A.
6	2	1	6	53	18	10,000 - 15,000 Kv.A. .... Nomb.
66,000	25,000	12,500	75,625	581,225	188,600	Total Kv.A.
10	1	2	10	46	9	15,000 - 25,000 Kv.A. .... Nomb.
96,500	18,750	30,000	165,000	870,750	172,750	Total Kv.A.
...	...	...	1	60	15	25,000 Kv.A. et plus .... Nomb.
...	...	...	44,000	2,108,375	739,500	Total Kv.A.
6	100	49	11	164	21	<u>Dynamos, C.D.</u> .... Nomb.
194	1,151	1,328	215	2,860	1,557	Total Kw.
4	100	47	11	160	17	Moins de 50 Kw. .... Nomb.
69	1,151	478	215	1,810	282	Total Kw.
2	...	...	...	2	2	50 - 200 Kw. .... Nomb.
125	...	...	...	200	125	Total Kw.
...	...	1	...	1	1	200 - 500 Kw. .... Nomb.
...	...	400	...	200	400	Total Kw.
...	...	1	...	1	1	500 Kw. et plus .... Nomb.
...	...	750	...	650	750	Total Kw.



Table 14 - ELECTRIC ENERGY GENERATED, 1937.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>ALL STATIONS</u>					
Total kilowatt hours generated .....(thousands)	27,687,645	6,524	446,976	501,319	14,341,400
Per cent of total for Canada .....	100.00	0.02	1.62	1.81	51.80
Kilowatt hours generated by non-generating stations .....(thousands)	557	...	519	...	...
Kilowatt hours generated by generating stns. (thousands)	27,687,108	6,524	446,457	501,319	14,341,400
Kv.A. capacity of generating stations .....	6,342,137	5,195	132,009	118,528	3,145,477
Ratio of output to maximum capacity ..... p.c.	50.3	14.3	39.3	48.3	52.1
Average kilowatt hours per Kv.A. ....	4,366	1,256	3,382	4,230	4,555
<u>GENERATING STATIONS</u>					
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	20,315,108	5,504	218,635	436,706	14,272,871
Kv.A. capacity .....	4,592,453	4,178	70,926	94,205	3,120,240
Ratio of output to maximum capacity ..... p.c.	51.1	15.0	36.4	52.9	53.0
Average kilowatt hours per Kv.A. ....	4,424	1,317	3,083	4,656	4,574
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	20,050,304	384	41,568	412,663	14,272,763
Kv.A. capacity .....	4,461,124	428	13,051	81,100	3,120,181
Ratio of output to maximum capacity ..... p.c.	51.9	10.2	36.4	58.1	53.0
Average kilowatt hours per Kv.A. ....	4,494	897	3,185	5,088	4,574
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	264,804	5,120	177,067	24,043	11,108
Kv.A. capacity .....	131,329	3,750	57,875	13,105	64,296
Ratio of output to maximum capacity ..... p.c.	23.4	15.6	36.4	20.9	20.0
Average kilowatt hours per Kv.A. ....	2,016	1,365	3,059	1,835	1,750
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	7,372,000	1,020	227,822	64,613	68,521
Kv.A. capacity .....	1,749,684	1,017	61,083	24,323	25,221
Ratio of output to maximum capacity ..... p.c.	48.3	11.4	42.6	30.3	31.0
Average kilowatt hours per Kv.A. ....	4,213	1,003	3,730	2,656	2,711
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	7,129,073	...	223,556	21,380	64,693
Kv.A. capacity .....	1,610,332	...	58,621	10,263	23,121
Ratio of output to maximum capacity ..... p.c.	50.7	...	43.5	23.8	31.0
Average kilowatt hours per Kv.A. ....	4,427	...	3,814	2,083	2,796
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	242,927	1,020	4,266	43,233	3,828
Kv.A. capacity .....	139,352	1,017	2,462	14,060	2,100
Ratio of output to maximum capacity ..... p.c.	19.9	11.4	19.8	35.1	20.0
Average kilowatt hours per Kv.A. ....	1,743	1,003	1,733	3,075	1,821
<u>TOTAL HYDRAULIC STATIONS</u>					
Kilowatt hours generated ..... (thousands)	27,179,377	384	265,124	434,043	14,337,451
Kv.A. capacity .....	6,071,456	428	71,672	91,363	3,143,301
Ratio of output to maximum capacity ..... p.c.	51.6	10.2	42.2	54.2	52.1
Average kilowatt hours per Kv.A. ....	4,477	897	3,699	4,751	4,561
Kilowatt hours generated by water power ..... (thousands)	27,175,722	340	265,104	434,043	14,337,451
Kilowatt hours generated by auxiliary plants.. (thousands)	3,655	44	20	...	...
<u>TOTAL FUEL STATIONS</u>					
Kilowatt hours generated ..... (thousands)	507,731	6,140	181,333	67,276	5,944
Kv.A. capacity .....	270,681	4,767	60,337	27,165	2,160
Ratio of output to maximum capacity ..... p.c.	21.6	14.7	35.7	28.3	20.0
Average kilowatt hours per Kv.A. ....	1,876	1,288	3,005	2,477	1,821
<u>CONSUMPTION OF ELECTRIC ENERGY (THOUSANDS OF KILOWATT HOURS)</u>					
Total kilowatt hours generated .....	27,687,645	6,524	446,976	501,319	14,341,400
Kilowatt hours imported from the United States .....	1,317	...	...	75	74
Kilowatt hours imported from other provinces .....	...	...	...	5,696	...
Kilowatt hours exported to the United States .....	1,843,227	...	...	17,596	44
Kilowatt hours exported to other provinces .....	...	...	...	...	2,151,79
<u>KILOWATT HOURS FOR CONSUMPTION IN CANADA</u>					
Domestic service .....	25,845,735	6,524	446,976	489,494	12,189,91
Commercial light .....	2,007,433	2,232	31,692	23,488	265,40
Small power .....	958,824	1,298	17,233	15,751	234,79
Large power .....	504,509	527	11,466	5,923	95,27
Street lighting .....	19,800,816	1,001	335,963	402,359	10,996,75
Free service (other than street lighting) .....	192,344	281	4,728	3,251	36,38
Losses .....	10,241	3	40	142	5,63
Losses .....	2,371,568	1,182	45,854	38,580	555,64

Excludes exports to other provinces and/or to the United States.

Tableau 14 - ENERGIE ELECTRIQUE GENEREE, 1937

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
8,528,726 50.80	1,697,656 6.13	147,143 0.53	222,755 0.81	1,795,146 6.48	<u>TOUTES USINES</u> Total kw. heure générés .....(milliers) Pourcentage du total pour le Canada Kilowatt-heure générés par les usines non-génératrices .....(milliers) Kilowatt-heure générés par les usines génératrices " ) Capacité des usines génératrices en Kv.A. Proportion de la production à la capacité maximum ... p.c. Moyenne de kilowatt-heure par Kv.A.
...	18	...	...	...	<u>USINES GENERATRICES</u> <u>USINES COMMERCIALES</u> <u>TOTAL</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
8,528,726 1,817,568 53.6 4,692	1,697,656 403,255 49.4 4,153	147,143 117,806 14.3 1,249	222,755 122,306 20.8 1,821	1,795,146 474,999 43.1 3,779	<u>USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacity maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
2,250,975 439,786 58.4 5,118	1,166,979 272,282 50.9 4,286	44,250 45,649 11.1 969	138,634 78,048 20.3 1,776	1,780,550 467,133 43.5 3,812	<u>USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
2,250,839 439,631 58.4 5,120	1,166,250 271,350 51.0 4,298	...	126,468 69,637 20.7 1,816	1,779,369 465,745 43.6 3,820	<u>USINES MUNICIPALES</u> <u>TOTAL</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
136 155 10.0 877	729 932 8.9 782	44,250 45,649 11.1 969	12,166 8,411 16.5 1,446	1,181 1,398 9.7 851	<u>USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
2,777,751 3,777,782 52.0 4,556	530,659 135,973 46.4 3,903	102,893 72,157 16.3 1,426	84,121 44,258 21.7 1,901	14,596 7,866 21.2 1,856	<u>USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
2,786,467 3,786,860 52.0 4,559	527,430 133,250 47.1 3,958	...	1,475 850 19.3 1,735	14,072 7,363 21.9 1,911	<u>USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
1,284 922 15.9 1,393	3,229 2,723 13.5 1,186	102,893 72,157 16.3 1,426	82,646 43,408 21.7 1,904	524 503 11.3 1,042	<u>USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
527,306 816,491 53.6 4,694	1,693,680 404,600 49.7 4,186	...	127,943 70,487 20.7 1,815	1,793,441 473,108 43.3 3,791	<u>TOUTES USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
526,100 1,206	1,693,549 131	...	127,700 243	1,791,434 2,007	Kw.-heure générés par force motrice hydraulique ... (milliers) Kw.-heure générés par les usines auxiliaires ..... (milliers)
1,420 1,077 15.0 1,318	3,958 3,655 12.4 1,083	147,143 117,806 14.3 1,249	94,812 51,819 20.9 1,830	1,705 1,891 10.3 902	<u>TOUTES USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A.
28,726 ... 46,096 24,043 ...	1,697,656 202 ... 611 ...	147,143 ... ... ... ...	222,755 292 2,504 ... ...	1,795,146 ... ... 533 2,504	<u>CONSOMMATION D'ENERGIE ELECTRIQUE (EN MILLIERS DE KW.H.)</u> Total de kilowatt-heure générés Kilowatt-heure importés des Etats-Unis Kilowatt-heure importés d'autres provinces Kilowatt-heure exportés aux Etats-Unis Kilowatt-heure exportés à d'autres provinces
50,779 74,358 67,076 41,876 50,203 35,660 731 22,875	1,697,247 303,271 73,841 54,630 1,067,530 18,580 69 179,326	147,143 37,234 21,816 20,371 42,437 7,712 47 17,526	225,551 35,339 30,689 29,269 80,300 7,998 1,253 40,723	1,792,109 134,414 96,341 45,175 1,224,264 19,738 2,321 269,856	<u>KILOWATT-HEURE CONSOMMES AU CANADA</u> Service domestique Eclairage commercial Petite force motrice Grosse force motrice Eclairage des rues Service gratuit (autre que l'éclairage des rues) Pertes

Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.



Table 15 - FUEL, 1937

Provinces	Bituminous Coal Charbon bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA .....	359,149	1,292,026	8,056	37,047
Prince Edward Island .....	6,601	36,749	...	...
Nova Scotia .....	154,452	587,796	...	...
New Brunswick .....	51,894	195,400	2,220	8,059
Quebec .....	...	...	34	213
Ontario .....	50	140	5,802	28,775
Manitoba .....	4,434	17,226	...	...
Saskatchewan .....	100,946	393,939	...	...
Alberta .....	36,265	42,989	...	...
British Columbia and Yukon .....	4,507	17,787	...	...
			Fuel Oil Huile combustible	
			Quantity Quantité	Value Valeur
			Gal.	\$
CANADA .....			4,826,829	503,963
Prince Edward Island .....			129,166	13,960
Nova Scotia .....			86,186	9,641
New Brunswick .....			37,031	4,110
Quebec .....			277,996	23,914
Ontario .....			220,044	21,041
Manitoba .....			227,431	31,750
Saskatchewan .....			3,221,775	329,460
Alberta .....			212,309	34,630
British Columbia and Yukon .....			414,891	55,430

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu. ft.



Tableau 15 - COMBUSTIBLE, 1937

Lignite Coal Charbon Lignite		Gasolene Gazoline		Kerosene Kérosène	
Canadian	Canadien				
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
136,933	222,265	26,655	6,790	22,141	8,200
...	...	135	40	90	18
...	...	...	...	...	...
...	...	...	...	...	...
...	...	280	66	...	...
...	...	90	17	11	3
455	1,700	4,902	1,008	...	...
26,619	35,330	3,032	974	8,698	1,855
109,859	185,235	17,008	4,333	...	...
...	...	1,208	342	13,342	6,324
Wood Bois		Natural Gas Gaz naturel		Other Fuel Autre Combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
Cords Cordes	\$	1,000 cu. ft. 1,000 pds. cu.	\$	\$	\$
8,672	25,288	334,532	14,509	472,651	2,582,729
225	900	...	...	...	51,667
...	...	...	...	470,028	1,067,465
3	12	...	...	...	207,581
...	...	...	...	50	24,243
500	700	...	...	...	50,681
4,902	18,114	...	...	2,573	72,375
...	...	...	...	...	761,564
3,042	5,562	334,532	14,509	...	287,265
...	...	...	...	...	59,888

Note: Tonne = 2,000 livres  
Gallon = Impérial  
Corde = 128 pds. cu.

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# BUREAU FEDERAL DE LA STATISTIQUE

## BRANCHE DES TRANSPORTS ET DES UTILITES PUBLIQUES

Statisticien du Dominion: R. H. Coats, L.L. D., F.R.S.C., F.S.S. (Hon.)  
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### INDUSTRIE DES USINES CENTRALES ELECTRIQUES, 1937

Les usines centrales électriques sont, pour les fins du recensement, des établissements appartenant à des compagnies, des municipalités ou des individus qui vendent ou distribuent de l'énergie, soit générée directement par l'établissement soit achetée pour revente. D'après le mode de propriété, elles sont réparties en deux classes: (a) commerciales, si elles sont exploitées par des compagnies ou des particuliers; (b) municipales, si elles le sont par la municipalité, le gouvernement provincial ou l'Etat fédéral. D'après leur mode de fonctionnement, elles se divisent en (a) usines génératrices, lorsqu'elles génèrent l'énergie qu'elles vendent (même si elles achètent aussi du courant pour compléter leur propre production), et en (b) non génératrices, si elles achètent toute l'énergie qu'elles vendent. Le dernier groupe comprend 24 usines disposant d'un outillage générateur auxiliaire classifié comme outillage générateur exclusivement. Dix-huit de ces établissements achètent toute leur énergie, et la production des six autres n'est que de 537,473 kWh, ce qui explique l'item plutôt surprenant au tableau 14 sur la production des usines non génératrices.

Les statistiques portent sur quelques établissements qui exploitent principalement des entreprises minières, des pulperies et papeteries, etc., et vendent leur surplus d'énergie électrique. Pour ces derniers établissements, l'on a tenu un état aussi distinct que possible de la statistique relative à l'industrie même des centrales électriques.

Les centrales peuvent préparer leurs rapports d'après leur année financière. Celle-ci ne correspond pas toujours avec l'année civile. Ainsi, la production inscrite dans leur rapport annuel n'est pas nécessairement celle des douze mois de l'année civile, conformément à leurs rapports mensuels. Toutefois les diverses données du rapport annuel correspondent à celles d'autres périodes.

La production des centrales électriques progresse assez bien jusqu'en mai 1930, pour diminuer ensuite les deux années suivantes; mais à partir du milieu de 1932 jusqu'à la fin de 1938, les progrès sont assez constants et rapides; le nombre-indice de la production mensuelle atteint un maximum de 224 en septembre 1936, la moyenne de 1926 étant prise comme base et représentée par 100. Le creux touché en 1932 donne un nombre-indice de 123 en juillet, le maximum précédent étant de 156 en mai 1930.

La production totale de l'année s'établit à 27,687,645,000 kWh. Ce n'est cependant que 50.3 p.c. de la capacité fixe de l'outillage. Il est impossible naturellement, de la porter à 100 p.c., car les charges varient, mais en 1928, elle s'établissait à 51.2 p.c. La proportion de 1937 représente une augmentation de 2.9 sur celle de 1936, laquelle est attribuable à plusieurs causes, dont une plus grande consommation minière et manufacturière et une augmentation de la consommation commerciale et ménagère. L'énergie absorbée pendant les heures creuses, ou énergie secondaire, a été produite en plus grande abondance pour la consommation des bouilloires électriques; en 1937, cette production représente 7,313,014,000 kWh ou 26 p.c. de la production totale.



En 1938, elle était de 6,942,841,000 kWh ou 27 p.c. de la production totale. L'augmentation de la production totale est de 2,285,364,000 kWh ou de 9.0 p.c. et se compose d'une augmentation de 370,173,000 kWh dans la production de l'énergie secondaire pour les bouilloires électriques et de 117,488,000 kWh dans celle de l'énergie produite aux sources orales et de l'excédent d'énergie exporté aux Etats-Unis. Ainsi l'augmentation de la production d'énergie ferme, compte tenu des pertes de lignes, est de 1,797,703,000 kWh ou 9.9 p.c. Un facteur important de cette augmentation est l'activité accrue des industries minières et de smelting. Les pulperies et papeteries en ont consommée 10,892,538,000 kWh ou 37 p.c. de la production totale. Ceci comprend 5,395,234,000 kWh de pouvoir secondaire pour les bouilloires, soit 74 p.c. de la consommation totale à cette fin par toutes les industries, et 4,897,298,000 kWh d'énergie ferme comme force motrice et éclairage. Le total n'est que de 182,894,000 kWh ou 1.8 p.c. de plus que la consommation de ces établissements en 1936. La consommation ménagère (éclairage d'habitations, etc.) augmente de 120,317,000 kWh ou 6.4 p.c. ce qui est légèrement inférieur à l'augmentation proportionnelle de 1936 sur 1935.

L'électricité n'est exportée du Canada que sur permis du Service d'inspection de l'électricité et du gaz, du ministère du Commerce. Ce service a juridiction sur les droits d'exportation imposés depuis le 1er avril 1925. Au cours de l'année fiscale terminée le 31 mars 1938, ces droits d'exportation s'élèvent à \$430,544, contre \$389,965 l'année précédente. Le taux est de trois centièmes d'un cent par kWh d'énergie exportée, sauf quelques exceptions. Le tableau qui suit donne la quantité d'énergie produite pour exportation au cours de l'année civile 1937, et les quantités exportées, la différence entre les deux item représentant les pertes de transmission. Les données ont été compilées des rapports annuels du directeur du Service d'inspection de l'électricité et du gaz.

KILOWATT-HEURES PRODUITS POUR EXPORTATIONS ET EXPORTES AUX ETATS-UNIS, ANNEE CIVILE 1937

Compagnie	kWh produits pour exportation	kWh exportés
Hydro Electric Power Commission of Ontario ....	390,781,700	386,310,900
Hydro Electric Power Commission of Ontario (surplus) .....	447,159,900	439,491,214
Goder Rapids Mfg. and Power Co., Ltd. ....	597,688,871	570,733,439
Canadian Niagara Power Co., Ltd. ....	397,745,100	379,904,201
Canadian Niagara Power Co., Ltd. (surplus) ....	12,109,200	12,109,200
Ontario and Minnesota Power Co., Ltd. ....	35,215,850	35,215,850
Maine and New Brunswick Electric Power Co. ....	17,307,553	16,700,587
British Columbia Electric Ry. Co., Ltd. ....	216,230	188,113
Northport Power and Light Co. ....	305,958	305,958
Maritime Electric Company Ltd. ....	397,680	397,680
Southern Canada Power Co. ....	444,398	444,398
Canadian Cottons Ltd. ....	497,283	497,283
Northern British Columbia Power Co. ....	39,270	39,270
Fraser Companies Ltd. ....	3,873,000	3,873,000
Detroit and Windsor Subway Co. ....	277,800	277,800
Manitoba Power Commission ....	610,894	610,894
Total .....	1,904,670,687	1,847,099,787
kWh produits pour exportation et exportés par les usines centrales électriques seulement .	1,900,797,687	1,843,226,787

Sur une production globale de 27,687,645,000 kWh, 27,175,722,000 ou plus de 98 p.c. sont générés par la force hydraulique, et les autres 507,731,000, par des usines utilisant exclusivement des forces thermiques. Les aménagements auxiliaires des stations hydrauliques et non génératrices produisent 4,192,000 kWh. La capacité des aménagements électriques du Canada en 1937, telle qu'établie par le Bureau Fédéral de l'Hydraulique et de l'Energie électrique, est de 8,112,751 h.p., ce qui représente environ 18.5 p.c. de toutes les forces hydrauliques captables dans les conditions actuelles. Le tableau suivant donne, pour le Canada, les forces hydrauliques ou captées ou potentielles.

FORCES HYDRAULIQUES, CAPTEES ET POTENTIELLES AU CANADA

Province	Forces disponibles par 24 heures à 80 p.c. d'efficiencie		Turbines installées 31 décembre	
	Au cours ordinaire minimum des eaux	Au cours ordinaire de six mois	1 9 3 7	1 9 3 8
(1)	(2) H.P.	(3) H.P.	(4) H.P.	(5) H.P.
Ile du Prince-Edouard	3,000	5,300	2,439	2,617
Nouvelle-Ecosse .....	20,800	128,300	123,437	130,617
Nouveau-Brunswick ....	68,600	169,100	133,681	133,347
Québec .....	8,459,000	13,064,000	3,999,686	4,031,063
Ontario .....	5,330,000	6,940,000	2,577,380	2,582,959
Manitoba .....	3,309,000	5,344,500	405,325	420,925
Saskatchewan .....	542,000	1,082,000	61,035	61,035
Alberta .....	390,000	1,049,500	71,597	71,997
Colombie Britannique .	1,931,000	5,103,500	719,972	738,013
Yukon et T.-Nord-Ouest	294,000	731,000	18,199	18,199
CANADA .....	20,347,400	33,617,200	8,112,751	8,190,772

Les chiffres des colonnes 2 et 3 sont basés seulement sur les rapides, les chutes et les sites de développement hydrauliques dont la différence de niveau ou la tête d'eau possible est connue de manière définitive ou est établie d'une manière approximative. Il y a d'un océan à l'autre plusieurs sites potentiels d'une capacité plus ou moins grande qui n'ont pas encore été étudiés et qui augmenteraient ces totaux.

Avec la construction de bassins d'emmagasiner et autres travaux régularisant l'écoulement des eaux il est encore possible d'augmenter ces chiffres potentiels. Il est d'habitude, et c'est ce qui se fait dans la plupart des cas, d'installer un outillage dont la capacité dépasse considérablement le débit théorique continu d'une chute et sur cette base il est estimé que la capacité maximum des pouvoirs d'eau aménagés au Canada est de 43,700,000 h.p.

Le tableau suivant donne la production provinciale plus les importations moins les exportations, le montant net montrant la consommation dans chaque province y compris les pertes de lignes; les livraisons aux bouilloires électriques dans chaque province y paraissent séparément. Le tableau 14 analyse de nouveau la consommation d'énergie électrique.



CONSOMMATION D'ENERGIE ELECTRIQUE AU CANADA (Y COMPRIS LES PERTES DE LIGNES)  
(Milliers de kilowatt-heures)

Province	Pouvoir secondaire livré aux bouilloires électriques 1937	Autres usages et pertes de lignes 1937	Total		Augmentation	
			1937	1936	1937 sur 1936	
					kWh	P.C.
Ile du Prince-Edouard	-	6,524	6,524	5,769	755	13.0
Nouvelle-Ecosse .....	-	446,976	446,976	412,294	34,682	8.4
Nouveau-Brunswick ...	42,460	447,034	489,494	415,603	73,891	17.7
Québec .....	5,786,682	6,403,230	12,189,912	11,138,098	1,051,814	9.4
Ontario .....	1,000,754	7,850,025	6,850,779	8,245,975	604,804	7.3
Manitoba .....	476,985	1,220,262	1,697,247	1,574,930	122,317	7.7
Saskatchewan .....	-	147,143	147,143	145,219	1,924	1.3
Alberta .....	-	225,551	225,551	219,565	5,986	2.7
Colombie Britannique et Yukon .....	6,133	1,785,976	1,792,109	1,671,614	120,495	7.2
CANADA .....	7,313,014	18,532,721	25,845,735	23,829,067	2,016,668	8.4

TABIEAU 1 - RESUME COMPARATIF, 1928-1937

Au cours de l'année, le nombre d'usines hydrauliques diminue de deux et le nombre d'usines thermiques augmente de cinq. Le capital est en augmentation constante étant en 1937 de 57 p.c. plus élevé qu'en 1928 et de .96 ou \$14,213,582 plus élevé qu'en 1936. En 1937, les recettes augmentent de 17,881,470 ou de 5.7 p.c. et les dépenses (gages, énergie achetée, combustible et taxes) augmentent de 36,246,032. Les lignes sur poteaux augmentent de 3,599 milles et le nombre d'usagers, de 65,202. Depuis 1928, 292,671 usagers pour service ménager ont été ajoutés aux lignes et la production d'électricité a augmenté de 69.5 p.c. La capacité génératrice de cette industrie a augmenté de 64.9 p.c. depuis 1928; elle s'établit à 6,206,465 kilovoltampères à la fin de 1937.

TABIEAU 2 - SERVICE MENAGER, 1930-1937

Ce tableau montre le nombre d'usagers, la consommation, les recettes et les moyennes calculées d'après ces items pour le service ménager (y compris celui des fermes) de 1930 à 1937; les données connues ne permettent pas de pousser plus loin une vue rétrospective. Le nombre d'usagers de toutes les provinces augmente de 1930 à 1937, les pourcentages variant entre 1.9 p.c. dans la Saskatchewan à 36.2 p.c. dans la Nouvelle-Ecosse. La consommation totale augmente de même dans toutes les provinces, la Nouvelle-Ecosse se classant première avec une augmentation de 99.0 p.c. Toutes les provinces à l'exception de la Saskatchewan accusent une augmentation de recettes provenant du service ménager. La consommation annuelle moyenne par usager varie grandement; le Manitoba vient en tête avec une moyenne, en 1937, de 3,963 kWh par usager; l'Ile du Prince-Edouard a la plus petite consommation, soit 491 kWh. Les changements sont relativement faibles dans les factures annuelles moyennes de chaque province, même si la consommation accuse une augmentation assez marquée; les factures de la Nouvelle-Ecosse, du Nouveau-Brunswick, de l'Ontario, et de la Colombie Britannique sont restées remarquablement semblables durant ces huit années, malgré les variations prononcées dans



factures de chacune de ces provinces. Les services ménagers sont plus complètement étudiés à la fin de ce rapport.

### TABEAU 3 - USINES D'ENERGIE

Les usines génératrices sont les établissements particuliers des usines centrales électriques. Tout immeuble abritant une machinerie productrice de force motrice est considéré comme une usine génératrice. Les organisations commerciales sont des compagnies et des particuliers vendant de l'énergie électrique, et les organisations municipales comprennent les municipalités rurales et urbaines, les commissions provinciales, etc. qui vendent de l'énergie électrique. Les organisations produisant de l'énergie exploitent d'un à plusieurs établissements chacune. La plus importante est la Commission Hydroélectrique de l'Ontario. Elle exploite 47 sources hydrauliques et un établissement auxiliaire à vapeur. Ces usines auxiliaires sont des usines thermiques appartenant aux systèmes hydrauliques ou des systèmes non générateurs et ne sont pas comprises ici avec les usines génératrices.

### TABEAU 4 - CAPITAL

Le capital engagé dans l'industrie est classifié sous quatre rubriques: capital de génération, capital de transmission et de distribution, et capital général. Le "capital de génération" comprend le capital immobilisé par les centrales, les sites, les barrages, les conduites d'amenée, les bassins d'ennagasinage et de régularisation, les réservoirs d'équilibre, etc., et aussi l'outillage des centrales, moins les transformateurs survolteurs et tout autre outillage de transmission. Le "capital de transmission et de distribution" comprend les item suivants: pylônes de transmission et de distribution, poteaux, fils, câbles, conduites, droits de passage, usines réceptrices, sites, tableaux de distribution et leurs transformateurs survolteurs ainsi que ceux des centrales, transformateurs, compteurs, etc. Le "capital général" comprend les placements dans les bureaux, les sites de bureaux, l'aménagement des bureaux, le matériel et les fournitures, les expèces en caisse, les comptes d'exploitation et les billets à recevoir. Le total représente le capital employé dans l'industrie. Le capital est total, le 31 décembre ou au terme de l'année financière, de chaque station exploitée, sans comprendre les immobilisations de capital des organisations nouvelles encore inexploitées, mais comprenant les dépenses encourues par des organisations en exploitation en vue d'installations futures. Les moyennes de capital total par unité d'énergie servent mieux à indiquer les différentes classes de stations et de services que le prix de revient d'installations semblables. Il en est de même, quoique à un degré moindre, du capital de génération par unité d'énergie.

### TABEAU 5 - REVENU

Les centrales électriques doivent répartir leurs clients, leur consommation et leur revenu sous les rubriques suivantes: (a) service des fermes, (b) service ménager, y compris l'éclairage et tous les autres usages domestiques, (c) éclairage commercial, (d) force motrice pour petit consommateur, 50 kVA ou moins, (e) force motrice de plus de 50 kVA, (f) ventes aux compagnies distributrices, (g) éclairage des rues et courant distribué sans frais aux édifices publics, etc. Le revenu est l'encaisse brute moins le prix de revient de l'énergie, ou revenu reçu du consommateur, sauf lorsqu'une station d'une province achète du courant d'une autre province; dans ce cas, le prix de revient de l'énergie ainsi achetée n'est pas déduit dans le calcul des données provinciales, mais il l'est dans celui des données fédérales. Cette distinction n'existe pas dans les rapports antérieurs à 1932; c'est pourquoi le revenu de l'Ontario, du Nouveau-Brunswick et de l'Alberta, provinces qui achètent du courant des



autres provinces, se trouve plus bas que de raison. Le revenu moyen par kWh subit l'influence de maints facteurs; il n'indique pas nécessairement le coût relatif de services similaires. La moyenne pour service ménager et éclairage commercial porte sur des services plus ou moins identiques, mais même là, la source d'énergie, la charge d'énergie, le marché de l'excédent de charge et du surplus de production, le prix de revient de la génération, de la transmission et de la distribution deviennent autant de facteurs qui influent sur les taux. A la fin du rapport l'on s'étend davantage sur les données du service ménager. Comme il faut s'y attendre, les usines de la province de Québec, avec leurs ventes énormes aux usines de pulpe et papier, montrent un revenu proportionnellement plus faible du service ménager que toutes autres stations, bien qu'en dollars il soit plus élevé que partout ailleurs, sauf en Ontario. Dans le calcul du revenu moyen par kWh pour toutes fins, il importe d'inclure les pertes de lignes; mais dans le service ménager, le service des fermes et l'éclairage commercial ces pertes ne sont pas comprises; dans ces divers services la consommation est comptée d'après les compteurs des consommateurs. Le revenu moyen par kWh consommé dans chaque province correspond au revenu reçu du consommateur ultime de la province plus le revenu reçu de l'énergie exportée de la province, divisé par le nombre de kWh ainsi vendus, pertes de toutes lignes comprises. Le revenu moyen par kWh de service ménager est affecté par la consommation par ménage et les quantités relatives servant à l'éclairage, à la cuisson et au chauffage de l'eau là où les taux varient avec les services. Dans la plupart des municipalités où la consommation augmente, le consommateur paie moins, en moyenne, par kWh. De même lorsque le tarif uniforme s'applique au chauffe-eau, la moyenne du prix de revient par kWh, pour toutes fins ménagères, s'en trouve réduite, et à mesure qu'augmente le nombre des chauffe-eau à tarif uniforme, la moyenne diminue jusqu'à parfois disparaître par suite de l'augmentation des taux ailleurs, pour la municipalité ou la province. Pour toutes fins ménagères, le prix moyen du kWh s'établit à 1.96 cents, contre une moyenne de 4.39 cents aux Etats-Unis.

Le revenu moyen par h.p. et par kVA est affecté par les classes de service et leur importance relative dans chaque province. Les usines du Québec vendent de grandes quantités d'énergie aux distributeurs ontariens. Le revenu de gros de cette énergie est attribué aux usines de l'Ontario. Dans la computation des moyennes pour les usines de l'Ontario, les capacités d'outillage données dans les tableaux 12 et 13 sont augmentées: un h.p. pour chaque 4,576 kWh importés des usines du Québec et un kVA pour chaque 6,136 kWh importés. Ce n'est qu'une estimation de l'outillage qui est basée sur les contrats de la Commission de l'énergie hydroélectrique de l'Ontario avec des compagnies du Québec qui comptent 88 kWh par semaine pour chaque h.p. acheté. Il est assez probable que cette production soit un peu trop élevée pour tout le pouvoir importé du Québec et c'est pourquoi les diviseurs sont trop petits et les revenus moyens trop élevés. Il ne semble pas que les erreurs soient considérables et les moyennes ajustées sont plus comparables aux moyennes des autres provinces que les moyennes non ajustées qui paraissent dans les rapports antérieurs à 1936. Les importations du Nouveau-Brunswick et de l'Alberta sont relativement si petites que leur effet sur les moyennes sont négligeables.

#### TABEAU 6 - DEPENSES

Les données sur ce point couvrent quatre rubriques: (1) salaires et gages, (2) combustible, (3) taxes et (4) le prix de revient du courant. Ce dernier item constitue une dépense entre les établissements et pourrait être omis de l'état des dépenses de toute l'industrie. Il indique cependant les achats d'énergie par les différents groupes d'usines. Les "salaires et gages" passent de \$23,367,091 en 1936 à \$25,623,76 en 1937, soit une augmentation de 9.7 p.c. Toutes les provinces montrent des bordereaux

^ Voir rapport de 1933 (page 5), les effets de cette omission.

de payer plus considérables. Les dépenses du "combustible" augmentent aussi de \$2,303,786 à \$2,582,729. Les "taxes" augmentent de \$1,344,714 au cours de l'année, passant de \$8,499,087 en 1936 à \$9,843,801 en 1937. Les usines commerciales ont payé \$9,256,477 ou 94 pour cent du total. Plus de la moitié des taxes versées par les usines municipales l'ont été par des usines ontariennes. Le prix de revient de l'énergie comprend et les montants versés par les municipalités qui s'approvisionnent auprès des commissions provinciales et les frais d'échange d'énergie entre les stations génératrices et les stations non génératrices.

TABEAU 7 - EMPLOYÉS

Les usines de toutes les provinces excepté le Nouveau-Brunswick et l'Alberta accusent des augmentations du nombre de leurs employés. L'augmentation nette s'établit à 931. Le tableau suivant donne une idée des heures de travail des employés à gages de l'industrie. La moitié environ des employés travaillent 48 heures par semaine et les deux tiers, 48 heures ou moins.

EMPLOYÉS A GAGES, MOIS D'EMPLOIEMENT MAXIMUM  
DONT LES HEURES RÉGULIÈRES DE TRAVAIL SONT  
LES SUIVANTES

Heures par semaine	40 hres ou moins	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 et plus	Total
le du P.-E.	-	-	-	-	30	-	-	-	-	-	3	33
.-Ecosse	138	8	49	9	623	12	22	47	6	54	158	1,126
.-Brunswick	62	12	6	48	83	1	1	163	-	28	7	411
Québec	379	134	108	31	1,655	157	9	1,016	7	100	197	3,793
Ontario	650	76	477	93	2,489	206	51	230	23	170	228	4,693
Manitoba	70	-	117	-	452	58	-	-	-	-	23	720
Saskatchewan	76	1	56	15	177	3	3	71	-	-	21	423
Alberta	196	-	-	-	135	3	5	-	-	9	2	350
Col. B. et Yukon	400	-	195	24	705	1	-	-	5	12	7	1,349
CANADA	1,971	231	1,008	220	6,349	441	91	1,527	41	373	646	12,898
C. du Total	15.28	1.79	7.82	1.71	49.22	3.42	.70	11.84	.32	2.89	5.01	100.00

TABEAU 8 - USAGERS

Suivant les explications du tableau 4, les stations doivent diviser leurs clients en sept classes mais comme plusieurs ne peuvent établir de distinction entre les services ménagers et les services de ferme, ces deux services sont combinés. Le nombre de services de ferme s'établit à 66,422 en 1937, ou 4.4 p.c. des services ménagers et de ferme réunis. Ils consomment 67,818,000 kWh. Il est fort probable que le nombre réel de fermes desservies soit beaucoup plus élevé. Le recensement de la population de 1931 fait voir que 58,741 fermes sont électrifiées tandis que les centrales électriques n'en rapportent que 43,250, la différence étant englobée probablement dans les services ménagers. Les relevés se sont sans nul doute améliorés depuis l'année 1931, la deuxième où cette répartition était exigée, et les chiffres de 1937 se rapprochent davantage du nombre réel d'usagers desservis. Les fermes voisines des grands centres urbains et desservies aux taux des usagers urbains, sont encore, dans nombre de cas, classifiées avec les usagers ménagers. En Ontario où la majorité des usagers ruraux sont desservis par la commission provinciale et classifiés comme services de ferme, la différence entre les chiffres actuels et ceux de 1931 est minime. En 1937,



Les services de ferme en Ontario s'établissent à 39,281 ou 59 p.c. du total. Les centrales de Québec déclarent 19,505 services de ferme. Il y en a 7,636 dans les autres provinces, mais pour peu que les données de 1931 puissent servir de critère, ce nombre est considérablement inférieur au nombre réel de fermes desservies. Le recensement de 1941 offrira un moyen sûr de vérification. Chaque municipalité qui éclaire ses rues à l'électricité est considérée comme un usager. Dans certains cas les usines commerciales fournissent le courant et dans d'autres, la municipalité en assure elle-même la distribution. Les provinces à fort pourcentage de population urbaine sont aussi celles qui comptent le plus d'usagers ménagers. La moyenne d'usagers ménagers par 100 habitants augmente de 13.10 en 1936 à 13.5 en 1937. Elle est basée sur les populations estimatives compilées par le Bureau et chaque domicile ou famille desservi est compté comme un usager. Ces moyennes ont été calculées pour la première fois en 1920 et depuis lors la moyenne du Canada a augmenté de 8.36 à 13.5 ou de 52.4 p.c. En Alberta, la densité est assez élevée en 1920 et l'augmentation entre 1920 et 1937 n'est que légèrement supérieure à l'augmentation de la population. Dans les autres provinces, l'augmentation est, par ailleurs, beaucoup plus considérable que l'augmentation de la population. Au Nouveau-Brunswick, la moyenne d'usagers ménagers par 100 habitants augmente de 144 p.c., en Nouvelle-Ecosse, de 109 p.c., dans l'Île du Prince-Edouard, de 69 p.c., dans le Québec, de 39 p.c., dans l'Ontario, de 70 p.c., au Manitoba, de 22 p.c., en Saskatchewan, de 46 p.c. et en Colombie Britannique, de 39 p.c. Dans la comparaison de ces taux d'augmentation, il importe de tenir compte de la densité de la population au début de la période. Au Manitoba, par exemple, la densité est de 8.76 en 1920, soit plus du double de celle du Nouveau-Brunswick et plus du triple de celle de l'Île du Prince-Edouard.

#### TABEAU 9 - MILLAGE DE LIGNES SUR POTEAUX

Les lignes de transmission et de distribution sont groupées dans le présent tableau, au lieu d'être séparées comme dans les rapports antérieurs à 1934. Une division indique le nombre de milles de lignes sur pylône et poteaux d'acier, de bois ou de béton, de câbles sous-marins ou souterrains, et une autre division les réseaux urbains et les lignes des tranchées, le long des routes, pour le service rural. Les pylônes et poteaux d'acier servent presque exclusivement aux lignes de transmission de haut voltage, et seuls le Québec, l'Ontario et le Manitoba comptent un grand nombre de milles de lignes. La diminution du millage de câbles souterrains en Ontario en 1936 est due à une correction, le millage réel montrant une légère augmentation.

#### TABLEAUX 10, 11, 12 et 13 - OUTILLAGE

L'outillage des usines génératrices est divisé en deux groupes: l'outillage principal et l'outillage auxiliaire ou de réserve. Par outillage auxiliaire, il faut comprendre tous les engins ou turbines à vapeur, les engins à combustion interne, les dynamos qu'ils actionnent dans les usines hydroélectriques ainsi que tout l'outillage des stations non génératrices. Tout autre outillage est classé comme outillage principal et comprend les roues et turbines hydrauliques, les générateurs qu'elles actionnent dans les usines hydroélectriques et tout outillage des usines exclusivement thermiques. Il peut arriver que des usines thermiques aient à leur disposition quelque outillage auxiliaire pour parer aux besoins urgents ou aux charges occasionnelles, et que d'autres usines hydrauliques aient aussi en réserve un certain outillage hydraulique pour les mêmes fins sans qu'il soit classé comme outillage principal. Bien que quelques usines hydroélectriques se servent de leur outillage thermique quand l'eau est basse ou quand la demande est forte, elles n'y ont recours cependant que dans les cas d'urgence. Au cours de l'année l'outillage auxiliaire n'a généré que 3,655,000 kWh. Au cours de l'année, l'usine sur le côté de Québec de Chats Falls est revenue en opération avec quatre unités de 28,000 h.p. chacune, une nouvelle unité de 45,000 h.p. a été installée.

l'île Maligne et plusieurs autres petites unités ont été ajoutées à d'autres établissements, portant la capacité globale à 7,539,435 h.p., y compris 197,350 h.p. d'outillage auxiliaire.

TABEAU 14 - COURANT ELECTRIQUE GENERE

Par courant électrique généré il faut entendre la production des usines génératrices moins l'énergie consommée par les usines elles-mêmes; l'expression comprend donc aussi les pertes de transformateurs et de lignes au cours de la livraison de l'énergie aux consommateurs. Toutes les grandes usines mesurent leur production; pour les usines qui n'ont pas de wattheure mètres, le nombre de kWh reste estimatif. Le rendement potentiel en kVA mentionné est le rendement potentiel, à la fin de l'année, des dynamos tant de l'outillage principal que de l'outillage auxiliaire des usines génératrices; cependant les taux de production maximum sont établis sur le nombre de kWh générés et sur le rendement potentiel déclaré des dynamos multiplié par le nombre d'heures pendant lesquelles les machines sont restées actives. Ainsi, le rendement potentiel maximum pour une dynamo de 1,000 kVA, pour un an, devrait être de 8,760,000 kWh; mais installée le 30 novembre, la capacité maximum serait limitée à 744,000 kWh à l'unité de facteur de puissance. Les taux deviennent donc directement sujets à comparaison pour chaque année, peu importe la date à laquelle de grandes additions sont effectuées à la capacité génératrice de l'industrie; la hausse et la baisse des proportions indiquent alors la position relative de l'offre et de la demande sur une base de kWh. En 1937, la proportion est de 50.3 p.c., soit une augmentation de 2.9 p.c. sur 1936, et une fraction d'un point seulement de moins que le maximum de 51.2 en 1928. Bien qu'elle ne doive pas atteindre 100 p.c., il est évident que les aménagements actuels peuvent répondre à une demande beaucoup plus forte que la charge de 1937. Quelques usines ont trouvé à vendre leur surplus de charge et leur énergie des heures creuses aux bouilloires électriques, débouché commercial qui a progressé très rapidement. En 1924, cette énergie secondaire s'élève à 260,489,000 kWh seulement, tandis qu'elle s'élève à 7,313,014,000 kWh en 1937.

ELECTRICITE VENDUE POUR LE CHAUFFAGE DES BOUILLOIRES ELECTRIQUES

(En milliers de kilowatt-heures)

Mois	1 9 3 4	1 9 3 5	1 9 3 6	1 9 3 7
Janvier .....	407,857	554,218	560,230	708,188
Février .....	395,227	500,103	529,423	664,150
Mars .....	445,842	518,053	622,208	706,651
Avril .....	493,601	515,778	685,527	648,127
Mai .....	474,838	523,922	581,429	620,589
Juin .....	436,102	462,598	518,029	600,398
Juillet .....	356,157	427,328	504,160	513,634
Août .....	369,660	414,138	490,277	491,409
Septembre .....	346,985	459,724	498,474	487,348
Octobre .....	455,524	600,143	618,109	566,436
Novembre .....	561,112	636,054	654,015	636,633
Décembre .....	594,227	632,590	680,960	669,451
TOTAL .....	5,337,133	6,312,387	6,942,841	7,313,014

Y compris 67,738,000 kilowatt-heures non distribués.



TABIEAU 15 - COMBUSTIBLE

Presque tout le combustible employé se compose de charbon, d'huile et de gaz naturel, etc., de toutes les provinces, la Saskatchewan et la Nouvelle-Ecosse sont les seules à faire usage d'une quantité considérable de combustible dans la génération de l'énergie électrique. La Nouvelle-Ecosse compte plusieurs usines hydroélectriques, mais la Saskatchewan n'en compte qu'une seule, près de la frontière manitobaine, et les statistiques qui s'y rapportent font partie de celles des usines du Manitoba. Les "autres combustibles" comprennent presque exclusivement de la vapeur qu'achète une usine de la Nouvelle-Ecosse.

SERVICE MÉNAGÈRE

Le tableau de la page suivante groupe et analyse toutes les données du service ménager dans chaque province. La concentration de la population dans les cités, les villes et les villages munis de services électriques influe sur le nombre d'usagers, leur proportion par 100 habitants et les taux de consommation, tant de la consommation provinciale totale que de la consommation ménagère au Canada. Le prix peut avoir des effets sur la consommation, sur la moyenne des états de compte, sur la moyenne du prix de revient le kWh ainsi que sur le nombre de consommateurs. Le mode de paiement pour le service peut influencer considérablement sur la moyenne de la consommation et du prix de revient le kWh. Les taux uniformes et les taux dégressifs, surtout les premiers, stimulent la consommation, mais ils tendent à augmenter de beaucoup la consommation en kWh et à réduire le coût moyen par unité; toutefois, ils peuvent augmenter la charge requise d'une fraction seulement du taux d'augmentation de la consommation. Les us et coutumes peuvent aussi avoir leur effet sur la consommation. C'est en Colombie Britannique que la densité des consommateurs est la plus forte; viennent ensuite l'Ontario et la Nouvelle-Ecosse. C'est au Manitoba que le prix de revient le kWh est le plus bas et la consommation par usager et par tête la plus élevée. Le tarif fixe sur les chauffe-eau, à Winnipeg, influe considérablement sur ces moyennes. Le même tarif, en vigueur dans l'Ontario, influe aussi sur les moyennes de cette province, mais non autant parce que la consommation de ce chef y représente un plus faible pourcentage de la consommation totale que dans le Manitoba.

SERVICE DOMESTIQUE, 1937

Province	Nombre d'usagers		Compte moyen (de l'année	Moyenne par kilowatt-heure	Consommation moyenne annuelle		Consommation du service domestique	
	Total	Par 1,000 âmes			Par usager	Par tête	P.C. de la consommation provinciale totale	P.C. de la consommation du S.D. du Canada
			\$	¢	kWh	kWh		
Ile du Prince-Edouard	4,545	4.89	33.59	6.84	491	24	34.2	.1
Nouvelle-Ecosse .....	58,165	10.73	26.40	4.84	545	58	7.1	1.6
Nouveau-Brunswick ...	41,604	9.46	26.87	4.76	565	53	4.8	1.2
Québec .....	407,155	12.99	19.92	3.06	652	85	2.2	13.2
Ontario .....	660,262	17.79	26.84	1.51	1,779	316	13.3	58.5
Manitoba .....	76,516	10.67	40.81	1.03	3,963	423	17.9	15.1
Saskatchewan .....	46,630	4.97	39.73	4.98	798	40	25.3	1.8
Alberta .....	61,121	7.86	30.52	5.28	578	45	15.7	1.8
Colombie Britannique et Yukon .....	144,130	19.09	26.22	2.81	933	178	7.5	6.7
CANADA .....	1,500,128	13.50	26.17	1.96	1,338	181	7.8	100.0





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**BUREAU FEDERAL DE LA STATISTIQUE**

**SECTION DES TRANSPORTS ET UTILITES PUBLIQUES**

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**RECENSEMENT INDUSTRIEL**

**1937**

**USINES ELECTRIQUES CENTRALES  
DU CANADA**

(Préparé en collaboration avec le Bureau Fédéral  
de l'hydraulique et de l'énergie Electrique,  
Ministère des Mines et Ressources)



OTTAWA

1939

Prix, 25 cents

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Minister of Trade and Commerce.

**CANADA**

**DOMINION BUREAU OF STATISTICS**

**TRANSPORTATION & PUBLIC UTILITIES BRANCH**

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**CENSUS OF INDUSTRY**

**1938**

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

(Prepared in collaboration with the Dominion  
Water and Power Bureau, Department of  
Mines and Resources)



OTTAWA  
1940

Price 25 cents







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**OTTAWA**

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Dominion Statistician, R.H. COATS, LL. D., F.R.S.C., F.S.S. (Hon.)

Chief, Transportation and Public Utilities Branch, G.S. Wrong, B.Sc.

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CENTRAL ELECTRIC STATION INDUSTRY, 1938.

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 24 stations which were holding generating equipment classed as auxiliary plant equipment. Nineteen of them purchased all their electric energy and the remaining five generated only 140,533 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

The output of central electric stations rose fairly continuously each year up to May 1930 when the index number of monthly output adjusted for seasonal variations reached a peak of 156. Due to general industrial conditions the output began to decline and the index number dropped to 122 for July 1932. It began to rise again more or less continuously to 240 for June 1937 when another slump set in which lasted about a year and the index dropped to 210 for June 1938. From this point on it rose fairly steadily, overcoming the loss in about a year and reaching a new peak in November 1939 of 248.

The total output for the year was 26,154,160,000 kilowatt hours which, however, was only 46.9 per cent of the rated capacity of the equipment. Of course a ratio of 100 per cent is not possible with varying loads, but in 1928 the ratio was 51.2 per cent. The 1938 ratio was a decrease of 3.4 points from the 1937 ratio and

It was due to a reduction of off-peak power, the power for other uses, including all line losses being slightly greater than in 1937.

The production of secondary power amounted to 5,751,350,000 kilowatt hours which was 22 per cent of the total output and 1,561,664,000 kilowatt hours or 21 per cent less than the secondary power output for 1937. This decline was largely due to the pulp and paper mills which showed a decrease in purchased power for electric boilers of 844,574,000 kilowatt hours, and 1,065,150,000 kilowatt hours for power and lighting. This industry is the largest consumer of electric power, taking about a third of the total output of central electric stations. The consumption of electric power for domestic services increased by 8.2 per cent, for commercial lighting by 7.7 per cent, for small power (50 kw. and less) by 2.6 per cent, and for street lighting by 2.4 per cent.

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1939, the export duty amounted to \$449,987 as against \$430,544 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export for the calendar year 1938, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES

(Calendar Year 1938)

Company	Produced for Export	Exported
	Kw.h.	Kw.h.
Hydro Electric Power Commission of Ontario .....	391,818,700	387,249,300
" " " " " (surplus)	424,102,100	417,251,923
Cedar Rapids Manufacturing and Power Co., Ltd. ...	597,471,540	570,817,684
Canadian Niagara Power Co., Ltd. ....	421,646,600	371,864,078
" " " " " (surplus) .....	35,980,900	35,980,900
Ontario and Minnesota Power Co., Ltd. ....	18,908,900	18,908,900
Maine and New Brunswick Electric Power Co. ....	18,144,981	17,515,863
British Columbia Electric Railway Co., Ltd. ....	222,992	194,005
Northport Power and Light Co. ....	288,300	288,300
Southern Canada Power Company .....	454,216	454,216
Canadian Cottons, Ltd. ....	431,140	431,140
Northern British Columbia Power Co. ....	29,850	29,850
Fraser Companies, Ltd. ....	4,412,000	4,412,000
Detroit and Windsor Subway Company .....	279,600	279,600
Manitoba Power Commission .....	837,600	837,600
TOTAL .....	1,915,029,419	1,826,515,359
Kilowatt hours produced for export and exported by central electric stations only .....	1,910,617,419	1,822,103,359



Of the total output of 26,154,160,000 kilowatt hours, 25,687,568,000 kilowatt hours, or over 98 per cent, were produced by water power, whereas only 463,234,000 kilowatt hours were produced by plants using only thermal engines and 3,358,000 kilowatt hours were produced by auxiliary equipment in hydraulic and non-generating stations.

The total hydraulic installation in all industries in Canada in 1938 including active and inactive plants, as compiled by the Dominion Water and Power Bureau was 8,190,772 horse-power which was about 18.7 per cent of the total that the recorded falls would warrant installing under present day practices. The available and developed water power in Canada is shown in the following table:

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province (1)	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 3 8	1 9 3 9
	(2)	(3)	(4)	(5)
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island ..	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	130,617	131,717
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	4,031,063	4,084,763
Ontario .....	5,330,000	6,940,000	2,582,959	2,596,799
Manitoba .....	3,309,000	5,344,500	420,925	420,925
Saskatchewan .....	542,000	1,082,000	61,035	90,835
Alberta .....	390,000	1,049,500	71,997	71,997
British Columbia.....	1,931,000	5,103,500	738,013	738,013
Yukon & Northwest Territories .....	294,000	731,000	18,199	18,199
CANADA .....	20,347,400	33,617,200	8,190,772	8,289,212

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse power.

The following table shows the provincial production plus imports less exports, the net amount being the consumption within each province including all line losses; the deliveries to electric boilers in each province are shown here segregated from other uses. The consumption of electric energy is further analyzed in table 14.



CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)  
(Thousands of Kilowatt Hours)

Province	Secondary Power Delivered to Electric Boilers 1938	Other Uses and Line Losses 1938	Total		Changes	
			1938	1937	1938 vs. 1937	
					Kw.h.	p.c.
P.E. Island ....	...	7,038	7,038	6,524	+ 514	7.88
Nova Scotia ....	...	404,828	404,828	446,976	- 42,148	9.43
New Brunswick ..	80,408	367,065	447,473	489,494	- 42,021	8.58
Quebec .....	4,258,934	9,448,190	13,707,124	12,189,912	+ 1,517,212	12.45
Ontario ,.....	969,448	4,766,271	5,735,719	8,850,779	- 3,115,060	35.20
Manitoba .....	438,824	1,247,447	1,686,271	1,697,247	- 10,976	0.65
Saskatchewan ...	...	153,500	153,500	147,143	+ 6,357	4.32
Alberta .....	...	232,545	232,545	225,551	+ 6,994	3.10
British Columbia and Yukon .....	3,736	1,954,447	1,958,183	1,792,109	+ 166,074	9.27
CANADA .....	5,751,350	18,581,331	24,332,681	25,845,735	- 1,513,054	5.85

TABLE 1 - COMPARATIVE SUMMARY, 1929-1938

During the year the number of hydro-electric plants was decreased by 1 and the number of fuel plants, or plants using thermal engines exclusively, was increased by 22. The capital has been increasing steadily, 1938 being 46 per cent above 1929 and 3.2 per cent, or \$48,086,361 above 1937. During 1938 revenue increased by \$784,984 or .54 per cent, and expenses (wages, power purchased, fuel, and taxes) by \$3,179,258. Pole line mileage was extended 3,942 miles and the number of customers was larger by 67,626. Since 1929, 266,913 domestic customers have been added to the lines and the production of electricity has increased 45.6 per cent. The generator capacity of the industry has increased 56.3 per cent since 1929 and at the close of 1938 amounted to 6,327,868 kilovolt amperes.

TABLE 2 - DOMESTIC SERVICE, 1930-1938

This table shows the number of customers, the consumption, revenue, and averages computed from these for domestic service including farm service for 1930 to 1938 which is as far back as all the data are available. In all provinces the number of customers increased between 1930 and 1938, the percentages ranging from 5 per cent in Saskatchewan to 37.1 per cent in Nova Scotia. The total consumption also increased in all provinces, Nova Scotia leading here also with an increase of 121.7 per cent. All provinces except Saskatchewan showed increased revenues from domestic service. The average annual consumption per customer varied widely, Manitoba leading with an average in 1938 of 4,010 kilowatt hours per customer and Prince Edward Island showing the smallest consumption at 537 kilowatt hours. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario, and British Columbia have been remarkably close together throughout these nine years despite the wide variations in unit costs. Domestic services are further discussed at the end of this report.

TABLE 3 - POWER PLANTS

The generating stations are the individual power plants of the central electric stations. Each building housing power machinery is counted as a generating station. The commercial organizations are companies and individuals selling electric energy and the municipalities include urban and rural municipalities, provincial commissions, etc., selling electric energy. Those generating power operate from one to several power plants each, the largest system being the Ontario Hydro Electric Power Commission which operates 48 hydraulic plants and owns one steam auxiliary plant. The auxiliary plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations.

TABLE 4 - CAPITAL

The capital employed in the industry is reported under three heads, viz., generation, transmission and distribution, and general. "Generation" includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. "Transmission and distribution" includes all transmission and distribution towers, poles, wires, cables and conduits and right-of-way, receiving stations and substations and sites, switchboards and step-up transformers in these and in power houses, step-down transformers, meters, etc. "General" includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal years, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. The averages of total capital per unit of power are more indicative of different classes of stations and service given than costs of similar installations. The same also applies to generation capital per unit of power, only to a lesser degree.

TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service, which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick, and Alberta, which purchased power from other provinces, were lower than they should have been. /

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect

/ See 1933 report, page 5, for effect of this omission.



the report. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services and for commercial light, line losses were not included, the consumption for these two services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters where different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average cost of 1.90 cents per kilowatt hour for all domestic service compares with an average of 4.21 cents or 4.07 cents including farm services in the United States. The average revenues per horse-power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in tables 12 and 13 were increased one horse-power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro Electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per week for each horse-power purchased. It is quite probable this output is a little too high for all the power imported from Quebec and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

#### TABLE 6 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Salaries and wages increased from \$25,623,767 in 1937 to \$27,148,688, or by 6.0 per cent, all provinces showing larger pay rolls. The fuel bill decreased from \$2,582,729 to \$2,010,902. The increase in taxes during the year was \$552,687, growing from \$9,843,801 in 1937 to \$10,396,488. Commercial stations paid \$9,549,840, or 32 per cent of the total. More than half of the taxes paid by municipal stations was paid by stations in Ontario. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations.

#### TABLE 7 - EMPLOYEES

Stations in all provinces except Saskatchewan, British Columbia and Yukon showed increases in the number of employees, the net increase in the total being 911 employees. The table below analyzes the hours of labour of wage-earners in the industry. Over one-half of the employees worked a 48-hour week and four-fifths worked 48 hours or less per week.



NUMBER OF WAGE-EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS  
PER WEEK WERE:

Hours per Week	40 or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 & over	Total
P.E.I.	-	-	-	-	24	-	-	-	-	-	4	28
N.S.	172	5	43	10	532	6	14	31	1	60	391	1,265
N.B.	54	4	43	1	85	1	2	174	-	22	13	399
Quebec	308	5	128	7	2,356	19	13	172	14	288	233	3,543
Ontario	670	74	723	121	3,179	248	28	282	22	163	159	5,669
Manitoba	58	-	85	-	668	5	-	6	-	13	2	837
Sask.	18	-	65	15	192	4	5	56	16	17	7	395
Alberta	129	2	33	25	164	1	5	-	-	5	1	365
B.C. and Yukon	390	4	181	45	771	1	-	-	4	7	9	1,412
CANADA	1,799	94	1,301	224	7,971	285	67	721	57	575	819	13,913
Per cent of Total	12.9	0.7	9.4	1.6	57.3	2.0	0.5	5.2	0.4	4.1	5.9	100.0

TABLE 8 - CUSTOMERS

As explained under table 4, stations are asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. The number of farm customers reported for 1938 was 77,020, or 4.9 per cent of the combined domestic and farm customers, and they consumed 82,253,389 kilowatt hours. From the 1931 population census data we know the actual number of farms served was considerably greater than this, the difference probably being included with domestic services. Farms close to large urban centres receiving service at rates similar to urban customers still will be classed as domestic customers in many cases. In Ontario where the majority of farm customers are served by the provincial commission and are classed as farm customers the difference from the 1931 census figure was small. In 1938 the Ontario farm customers reported were 46,096, or 60 per cent of the total. Quebec stations reported 22,266 farm customers. For the other provinces 8,658 were reported, but if the 1931 data can be used as a criterion this is considerably less than the actual number of farms served. A reliable check will be available when the 1941 population census is taken. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality itself distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. The average number of domestic service customers per 100 population increased from 13.5 in 1937 to 13.9 in 1938. These averages are based on the Bureau's estimated populations and each residence or family served is counted as one customer. These averages were first computed for 1920 and since then the average for Canada has increased from 8.86 to 13.9, or by 57.1 per cent. In Alberta the density was fairly high in 1920 and the increase between 1920 and 1938 was only slightly greater than the increase in population, but in the other provinces the increase has been much greater than the increase in population. In New Brunswick the average number of domestic service customers per 100 population increased by 152 per cent, in Nova Scotia by 108 per

cent, in Prince Edward Island by 77 per cent, in Quebec by 36 per cent, in Ontario by 77 per cent, in Manitoba by 23 per cent, in Saskatchewan by 51 per cent, and in British Columbia by 44 per cent. When comparing these rates of increase the densities at the beginning of the period should be analyzed; for example, Manitoba had a density of 8.76 in 1920, or more than twice the density of New Brunswick and three times that of Prince Edward Island.

#### TABLE 9 - POLE LINE MILEAGE

Transmission and distribution lines have been combined in this table instead of being separated as in reports previous to 1934 and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario, and Manitoba have extensive mileages.

#### TABLES 10-11-12-13 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 3,217,000 kilowatt hours being generated during the year by this auxiliary equipment. During the year the Nova Scotia Power Commission installed a 10,200 horse-power hydraulic turbine at Cowie Falls; the Gatineau Power added a 34,000 horse-power turbine to its Chelsea Plant; the Ontario Hydro Electric Power Commission installed two turbines of 5,200 horse-power each in its Ragged Rapids Plant and the Great Lakes Power Company installed a turbine of 10,400 horse-power in its plant on the Montreal River. The City of Winnipeg added a 12,500 horse-power turbine to its Slave Falls Plant and the British Columbia Electric Company added a 47,000 horse-power turbine to its Ruskin Plant. These with smaller additions brought the total capacity up to 7,672,604 horse-power, including both main and auxiliary plant equipment.

#### TABLE 14 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt-hour meters the kilowatt hours are estimated as best possible. The Kv.A. capacities shown were the rated



dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 Kv.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio for 1938 was 47.0 per cent, a decrease of 3.3 points over 1937. While this ratio will not reach 100 per cent, the present installations could undoubtedly meet a demand considerably greater than the 1938 load. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale has been growing quite rapidly. In 1924 this secondary power amounted to only 260,489,000 kilowatt hours, but in 1937 it had grown to 7,313,014,000 kilowatt hours and in 1938 it declined to 5,751,350,000 kilowatt hours.

ELECTRICITY SOLD FOR USE IN ELECTRIC BOILERS  
(Thousands of Kilowatt Hours)

Month	1935	1936	1937	1938
January	554,218	560,230	708,188	567,585
February	500,103	529,423	664,150	498,506
March	518,053	622,208	706,651	541,016
April	515,778	685,527	648,127	447,901
May	523,922	581,429	620,589	420,817
June	462,598	518,029	600,398	344,815
July	427,328	504,160	513,634	362,027
August	414,138	490,277	491,409	407,929
September	459,724	498,474	487,348	479,317
October	600,143	618,109	566,436	536,493
November	636,054	654,015	636,633	593,051
December	632,590	680,960	669,451	551,893
TOTAL	/ 6,312,387	6,942,841	7,313,014	5,751,350

/ Includes 67,738,000 kilowatt hours not distributed.

TABLE 15 - FUEL

Fuel used is almost entirely local coal, oil, and gas, and Saskatchewan and Nova Scotia are the only provinces using any substantial quantities of fuel to develop electric energy. Nova Scotia has several large hydro-electric developments, but Saskatchewan has only one which is on the Manitoba boundary and is included with Manitoba stations in these statistics. "Other fuel" is composed almost entirely of steam purchased by a Nova Scotia station.



# DOMESTIC SERVICE

Below is a table bringing together and analyzing the domestic service data for each province. The concentration of population in the cities, towns and villages having electric service would affect the number of customers, the number per 100 population, and ratios of consumption to total provincial consumptions and to the domestic consumption in Canada. The price would affect consumption, average bill, average cost per kilowatt hour, and, to a lesser degree, the number of customers. The method of charging for service would also have a marked effect on the average consumption and average cost per kilowatt hour. Flat rate charges and sliding scales which induce increased consumption, particularly the first, tend to greatly increase the kilowatt hour consumption and reduce the average cost per kilowatt hour although they may increase the connected load by only a fraction of the rate of consumption increase. The habits and customs of the people also would have an effect on the consumption. British Columbia ranked first in density of customers, Ontario was second and Quebec third. Manitoba showed by far the lowest average cost per kilowatt hour and the largest consumption per customer and per capita. These were considerably affected by the flat **rate** for water heaters in Winnipeg. Flat rate water heaters in Ontario also affect Ontario averages, but not to the same extent because the consumption of these heaters was a smaller percentage of the total consumption than in Manitoba.

## DOMESTIC SERVICE, 1938

PROVINCE	NUMBER OF CUSTOMERS		AVERAGE BILL FOR YEAR \$	AVERAGE PER KILOWATT HOUR ¢	AVERAGE ANNUAL CONSUMPTION		CONSUMPTION BY DOMESTIC SERVICE	
					Per Customer Kw.Hr.	Per Capita Kw.Hr.	Per cent of total Provincial Consumption	Per cent of Dominion Dom. Service Consumption
	Total	Per 100 Population						
P.E. Island	4,799	5.11	31.46	5.85	537	27	36.6	0.1
Nova Scotia	58,556	10.69	27.24	4.52	603	64	8.7	1.6
New Brunswick	43,556	9.79	28.31	4.36	582	57	5.7	1.2
Quebec	421,178	13.28	20.58	3.02	682	91	2.1	13.2
Ontario	691,498	18.53	26.69	1.44	1,859	345	22.4	59.2
Manitoba	77,762	10.30	41.45	1.03	4,010	433	18.5	14.3
Saskatchewan	48,060	5.11	39.61	4.87	813	42	25.5	1.8
Alberta	63,030	8.05	31.46	5.21	604	49	16.4	1.8
B.C. and Yukon	150,955	19.73	27.07	2.77	978	193	7.5	6.8
CANADA	1,559,394	13.92	26.49	1.90	1,393	194	8.9	100.0

INDEX NUMBERS  
OF  
CENTRAL ELECTRIC OUTPUT  
1926 = 100

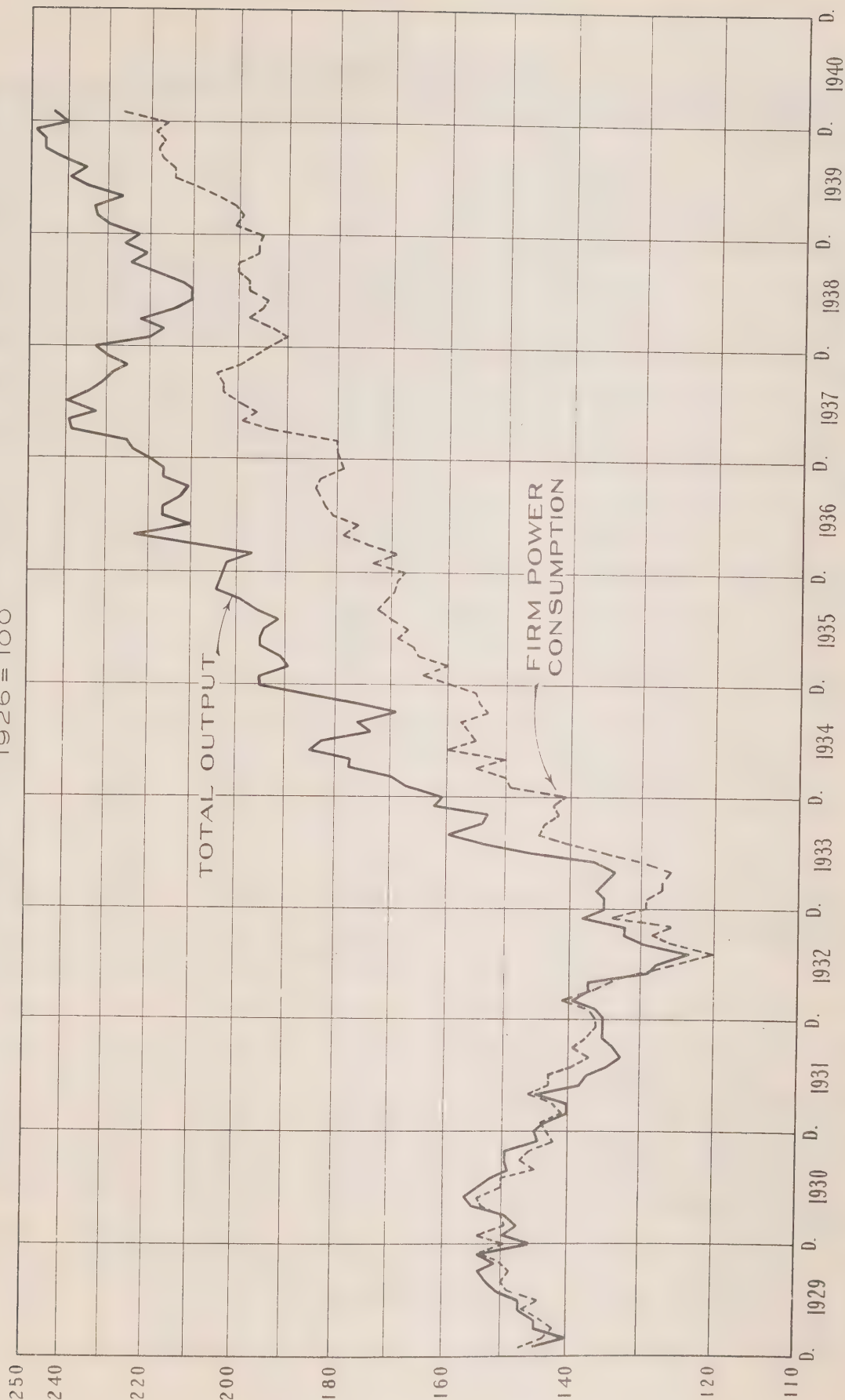


TABLE 1 - COMPARATIVE SUMMARY, 1929-1938

PRINCIPAL DATA BY CLASS OF STATION	1938	1937	1936	1935	1934
<b>ELECTRIC POWER PLANTS</b>					
Total .....	589	568	561	566	573
Commercial .....	313	314	312	316	314
Municipal .....	276	254	249	250	259
Generating .....	406	389	390	397	402
Non-generating .....	183	179	171	169	171
<b>CAPITAL</b>					
Total .....	1,545,416,592	1,497,330,231	1,483,116,649	1,459,821,168	1,430,852,166
Commercial .....	1,002,891,485	979,950,159	957,466,865	962,263,142	956,382,436
Municipal .....	542,525,107	517,380,072	525,649,784	497,558,026	474,469,730
Generating .....	1,377,120,289	1,337,999,695	1,326,820,103	1,307,710,173	1,281,048,308
Non-generating .....	168,296,303	159,330,536	156,296,546	152,110,995	149,803,863
<b>REVENUE (1)</b>					
Total .....	144,331,627	143,546,643	135,865,173	127,177,954	124,463,613
Commercial .....	87,697,078	85,283,008	78,882,504	79,341,554	77,309,001
Municipal .....	56,634,549	58,263,635	56,982,669	47,836,400	47,154,612
Generating .....	120,784,939	120,465,135	112,776,015	105,638,584	104,089,041
Non-generating .....	23,546,688	23,081,508	23,089,158	21,539,370	20,374,572
<b>EXPENSES (2)</b>					
Total .....	87,564,340	84,185,082	77,939,050	79,625,134	75,948,821
Commercial .....	41,067,998	41,132,931	36,530,527	33,836,054	31,778,237
Municipal .....	46,296,342	48,052,151	41,408,523	45,789,080	44,170,584
Generating .....	48,946,422	46,114,640	41,390,019	43,904,771	40,911,118
Non-generating .....	38,417,918	38,070,442	36,549,031	35,720,363	35,037,703
<b>POLE LINE MILEAGE</b>					
Total .....	66,977	63,035	59,436	57,602	56,214
Commercial .....	29,355	28,332	27,271	26,520	26,476
Municipal .....	37,622	34,703	32,165	31,082	29,738
Generating .....	52,375	48,866	45,099	43,372	42,537
Non-generating .....	14,604	14,169	14,337	14,230	13,677
<b>CUSTOMERS</b>					
Total .....	1,873,621	1,805,995	1,740,793	1,694,703	1,660,079
Domestic service (3) .....	1,559,394	1,500,128	1,443,059	1,401,983	1,379,153
Commercial light .....	259,893	252,305	245,144	240,468	229,137
Power (small) .....	41,999	41,415	40,742	40,292	41,429
Power (large) .....	10,152	10,066	9,840	9,989	8,325
Street lighting .....	2,183	2,081	2,008	1,971	1,985
Commercial stations .....	859,506	833,711	802,676	779,400	760,462
Municipal stations .....	1,014,115	972,284	938,117	915,303	899,617
Generating stations .....	954,797	916,648	866,407	837,278	819,419
Non-generating stations .....	918,824	889,347	874,386	857,425	840,660
<b>ELECTRIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	26,154,160	27,687,645	25,402,282	23,283,033	21,197,124
Commercial .....	19,488,323	20,315,627	18,515,225	17,767,949	16,060,883
Municipal .....	6,665,837	7,372,018	6,887,057	5,515,084	5,136,241
Exports to the United States (6) .....(thousands)Kw.h.	1,822,103	1,843,227	1,573,980	1,359,021	1,243,079
Imports from the United States (6) (thousands)Kw.h.	624	1,317	765	656	642
<b>EQUIPMENT IN GENERATING STATIONS (MAIN PLANT ONLY)</b>					
Total Primary Power .....	7,476,976	7,342,085	7,119,272	7,104,142	6,854,161
Total in commercial stations .....	5,300,183	5,203,529	5,012,968	5,138,200	4,961,639
Total in municipal stations .....	2,176,793	2,138,556	2,106,304	1,965,942	1,892,522
Total Secondary Power .....	6,327,868	6,206,465	6,025,999	5,893,984	5,699,955
Total in commercial stations .....	4,586,273	4,496,443	4,340,869	4,317,823	4,179,536
Total in municipal stations .....	1,741,595	1,710,022	1,685,130	1,576,161	1,520,419
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	195,628	197,350	200,621	206,831	207,431
Secondary power .....	166,660	167,839	172,327	176,890	177,244

- (1) Duplications excluded.
- (2) Includes wages, cost of power, fuel and taxes, but not other expenses.
- (3) Farm service is included with domestic service.
- (4) Includes small power customers in 1929.
- (5) Revised.
- (6) By central electric stations only. (See page 2)



TABLEAU 1 - SOMMAIRE COMPARATIF, 1929-1938

1938	1937	1936	1935	1934	1933	DONNEES PRINCIPALES PAR CLASSES D'USINES
						<u>USINES ELECTRIQUES</u>
575	572	559	587	585		<u>Total</u>
314	312	307	311	300		Hydrauliques
261	260	252	276	285		A combustible
403	402	396	421	420		Commerciales
172	170	163	166	165		Municipales
						<u>CAPITAL</u>
1,386,532,055	1,335,886,987	1,229,988,951	1,138,200,016	1,055,731,532		<u>Total</u>
913,946,953	880,013,400	785,915,480	723,890,071	685,771,270		Commerciales
472,585,102	455,873,587	444,073,471	414,309,945	369,960,262		Municipales
1,240,169,785	1,191,498,567	1,092,292,089	995,701,285	926,103,973		Génératrices
146,362,270	144,387,420	137,696,862	142,498,731	129,627,559		Non-génératrices
						<u>RECETTES (1)</u>
117,532,081	121,212,679	122,310,730	126,038,145	122,883,446		<u>Total</u>
73,082,078	73,124,089	72,103,930	73,261,572	70,874,794		Commerciales
44,450,003	48,088,590	50,206,800	52,776,573	52,008,652		Municipales
98,735,084	100,821,712	101,475,523	104,632,540	102,704,833		Génératrices
18,796,997	20,390,967	20,835,207	21,405,605	20,178,613		Non-génératrices
						<u>DEPENSES (2)</u>
73,051,651	74,306,251	75,235,767	74,209,469	67,432,418		<u>Total</u>
29,169,633	30,549,320	32,418,131	33,712,063	31,888,591		Commerciales
43,882,018	43,956,931	42,817,636	40,497,406	35,543,827		Municipales
38,608,455	40,262,157	41,336,873	40,646,659	36,713,723		Génératrices
34,443,196	34,044,094	33,898,894	33,562,810	30,718,695		Non-génératrices
						<u>LIGNES SUR POTEAUX</u>
56,570	53,845	52,399	48,814	42,913		<u>Total</u>
25,129	25,010	24,299	23,614	22,356		Commerciales
31,441	28,835	28,100	25,200	20,557		Municipales
43,625	40,675	39,709	35,707	30,718		Génératrices
12,945	13,170	12,690	13,107	12,195		Non-génératrices
						<u>ABONNES</u>
1,666,882	1,657,454	1,632,792	1,607,881	1,555,883		<u>Total</u>
1,371,806	1,357,462	1,336,721	1,317,324	1,292,481		Service domestique (3)
244,283	248,487	244,634	238,847	(4) 233,854		Eclairage commercial
40,641	28,942	25,913	24,836	( 28,001		Force motrice (petite)
8,160	20,593	23,583	25,150	(		Force motrice (grosse)
1,992	1,970	1,941	(5) 1,724	1,547		Eclairage des rues
776,581	776,400	758,285	745,608	733,698		Usines commerciales
890,301	881,054	874,507	862,158	822,185		Usines municipales
843,324	846,420	835,460	814,268	796,298		Usines génératrices
823,558	811,034	797,332	793,498	759,585		Usines non-génératrices
						<u>ENERGIE ELECTRIQUE GENEREE</u>
17,338,990	16,052,057	16,330,867	18,093,802	17,962,515		<u>Total Kw. heures générés (milliers)</u>
13,665,974	12,338,216	12,191,139	12,937,014	12,774,107		Commerciale
3,673,016	3,713,841	4,139,707	5,156,788	5,188,408		Municipale
983,561	659,691	1,227,036	1,612,281	1,444,524		Exportations d'électricité aux Etats-Unis (6) .....(milliers) Kw.h.
608	552	5,446	5,757	6,133		Importations d'électricité des Etats-Unis (6) .....(milliers) Kw.h.
						<u>MACHINERIE DANS LES USINES GENERATRICES</u>
						(Usines principales seulement)
6,616,006	6,343,654	5,706,757	5,401,108	4,925,555		<u>Total force motrice primaire</u> ..... H.P.
4,707,096	4,577,493	4,046,810	3,794,819	3,523,625		Total dans les usines commerciales ..... H.P.
1,908,910	1,766,161	1,659,947	1,606,289	1,401,930		Total dans les usines municipales ..... H.P.
5,491,685	5,278,204	4,727,376	4,474,865	4,048,019		<u>Total force motrice secondaire</u> .....Kv.a.
3,958,475	3,850,009	3,388,926	3,181,428	2,940,210		Total dans les usines commerciales ....Kv.a.
1,535,210	1,428,195	1,338,450	1,293,437	1,107,809		Total dans les usines municipales ....Kv.a.
						<u>OUTILLAGE D'USINES AUXILIAIRES</u>
193,569	184,879	184,043	171,453	171,888		Force motrice primaire ..... H.P.
164,732	157,077	157,221	145,678	146,251		Force motrice secondaire .....Kv.a.

(1) Duplications exclues.

(2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

(3) L'éclairage des fermes est inclus dans l'éclairage domestique.

(4) Comprend les petits consommateurs d'énergie en 1929.

(5) Révisé.

(6) Par usines centrales électriques seulement. (Voir page 2.)

TABLE 2 - DOMESTIC SERVICE, 1930 - 1938

Year Année	Number of Customers Nombre d'usagers	Kilowatt Hours Consumed Kilowatt heures consommés (000)	Revenue Recettes \$	Kw. Hours per Customer Consumation moyenne annuelle par usager kw. hrs.	Average Annual Bill Compte moyen de l'année \$	Revenue per Kilowatt Hour Moyenne par kilowatt heure ¢
CANADA .....						
1930	1,317,324	1,489,575	34,114,680	1,131	25.90	2.29
1931	1,336,721	1,563,705	35,259,891	1,170	26.38	2.25
1932	1,357,462	1,639,498	36,422,073	1,208	26.83	2.22
1933	1,371,806	1,650,395	35,953,823	1,203	26.21	2.18
1934	1,379,153	1,717,090	36,507,822	1,245	26.47	2.13
1935	1,401,983	1,769,848	36,773,643	1,262	26.23	2.08
1936	1,443,059	1,887,116	38,399,102	1,308	26.61	2.03
1937	1,500,128	2,007,433	39,253,133	1,338	26.17	1.96
1938	1,559,394	2,172,500	41,302,107	1,393	26.49	1.90
Change (Changement) 1930-1938 Amount (Volume) Per cent (p.c.)	+ 242,070 + 18.4	+ 682,925 + 45.8	+ 7,187,427 + 21.1	+ 262 + 23.2	+ 0.59 + 2.28	- 0.39 - 17.03
PRINCE EDWARD ISLAND ...						
1930	3,785	1,170	112,566	309	29.74	9.62
1931	3,980	1,343	120,606	337	30.30	8.98
1932	3,978	1,498	129,835	377	32.63	8.67
1933	3,970	1,584	135,231	399	34.06	8.54
1934	4,097	1,605	133,843	392	32.67	8.34
1935	4,199	1,722	134,740	410	32.08	7.82
1936	4,379	2,035	145,442	465	33.21	7.15
1937	4,545	2,232	152,660	491	33.59	6.84
1938	4,799	2,579	150,994	537	31.46	5.85
Change (Changement) 1930-1938 Amount (Volume) Per cent (p.c.)	+ 1,014 + 26.8	+ 1,409 + 120.4	+ 38,428 + 34.1	+ 228 + 73.8	+ 1.72 + 5.8	- 3.77 - 39.2
NOVA SCOTIA .....						
1930	42,703	15,924	1,097,500	373	25.70	6.89
1931	45,252	19,120	1,151,609	423	25.45	6.02
1932	46,421	21,213	1,201,279	457	25.88	5.36
1933	47,124	21,800	1,199,351	463	25.46	5.50
1934	48,852	23,637	1,257,599	484	25.74	5.32
1935	52,300	25,937	1,330,632	496	25.44	5.13
1936	54,763	29,212	1,457,054	533	26.61	4.99
1937	58,165	31,692	1,535,298	545	26.40	4.84
1938	58,556	35,307	1,595,086	603	27.24	4.52
Change (Changement) 1930-1938 Amount (Volume) Per cent (p.c.)	+ 15,853 + 37.1	+ 19,383 + 121.7	+ 497,586 + 45.3	+ 230 + 61.7	+ 1.54 + 6.0	- 2.37 - 34.4
NEW BRUNSWICK .....						
1930	32,426	15,734	839,395	485	25.89	5.33
1931	33,964	17,676	901,325	520	26.54	5.10
1932	35,543	19,230	971,597	541	27.34	5.05
1933	34,959	18,740	954,423	536	27.30	5.09
1934	35,364	19,607	962,212	554	27.21	4.91
1935	36,602	20,597	994,895	563	27.18	4.83
1936	38,660	22,049	1,068,038	570	27.63	4.84
1937	41,604	23,488	1,117,953	565	26.87	4.76
1938	43,556	25,367	1,232,937	582	26.31	4.86
Change (Changement) 1930-1938 Amount (Volume) Per cent (p.c.)	+ 11,130 + 34.3	+ 9,633 + 61.2	+ 393,542 + 46.9	+ 97 + 20.0	+ 2.42 + 9.3	- 0.47 - 8.8
QUEBEC .....						
1930	374,725	205,457	8,082,058	548	21.57	3.93
1931	375,764	225,671	8,100,380	595	21.56	3.62
1932	385,211	239,032	8,210,401	621	21.31	3.43
1933	385,175	240,110	7,795,948	623	20.24	3.25
1934	378,705	237,322	7,776,391	627	20.53	3.28
1935	378,388	226,285	7,297,458	598	19.29	3.22
1936	390,711	241,799	7,723,973	619	19.77	3.19
1937	407,155	265,405	8,108,946	652	19.92	3.06
1938	421,178	287,107	8,669,034	682	20.58	3.02
Change (Changement) 1930-1938 Amount (Volume) Per cent (p.c.)	+ 46,453 + 12.4	+ 81,650 + 39.7	+ 586,976 + 7.26	+ 134 + 24.5	- 0.99 - 4.6	- 0.91 - 23.2



TABLEAU 2 - SERVICE DOMESTIQUE, 1930 - 1938

	Year Année	Number of Customers Nombre d'usagers	Kilowatt Hours Consumed Kilowatt heures consommées (000)	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager kw. hrs.	Average Annual Bill Compte moyen de l'année	Revenue per Kilowatt Hour Moyenne per kilowatt heure
<b>ONTARIO</b> .....							
	1930	563,152	840,992	14,733,013	1,493	26.16	1.75
	1931	579,721	868,072	15,448,069	1,497	26.65	1.78
	1932	585,343	912,169	16,170,224	1,558	27.63	1.77
	1933	598,347	917,649	16,262,707	1,534	27.18	1.77
	1934	605,885	980,978	16,811,849	1,619	27.75	1.71
	1935	618,111	1,023,929	17,171,434	1,657	27.78	1.68
	1936	634,052	1,098,598	17,716,636	1,733	27.94	1.61
	1937	660,262	1,174,358	17,718,464	1,779	26.84	1.51
	1938	681,498	1,285,568	18,456,575	1,859	26.69	1.44
Change (Changement) 1930-1938							
Amount (Volume)		+ 128,346	+ 444,576	+ 3,723,562	+ 366	+ 0.53	- 0.31
Per cent (p.c.)		+ 22.8	+ 52.9	+ 25.3	+ 24.5	+ 2.02	- 17.7
<b>MANITOBA</b> .....							
	1930	72,395	242,718	2,680,036	3,353	37.02	1.10
	1931	71,324	257,482	2,679,138	3,610	37.56	1.04
	1932	71,954	270,272	2,873,481	3,756	39.93	1.06
	1933	72,935	275,048	2,743,877	3,771	37.62	1.00
	1934	73,545	282,067	2,782,475	3,835	37.83	0.99
	1935	74,538	289,314	2,914,963	3,881	39.11	1.01
	1936	75,858	296,110	3,029,140	3,903	39.93	1.02
	1937	76,516	303,271	3,122,397	3,983	40.81	1.03
	1938	77,762	311,793	3,223,605	4,010	41.45	1.03
Change (Changement) 1930-1938							
Amount (Volume)		+ 5,367	+ 69,075	+ 543,569	+ 657	+ 4.43	- 0.07
Per cent (p.c.)		+ 7.4	+ 28.5	+ 20.3	+ 19.6	+ 12.0	- 6.4
<b>SASKATCHEWAN</b> .....							
	1930	45,777	35,380	1,905,257	773	41.62	5.59
	1931	44,078	35,524	1,809,029	806	41.04	5.09
	1932	44,952	36,142	1,802,758	804	40.10	4.99
	1933	44,319	36,317	1,775,697	819	40.07	4.89
	1934	44,493	34,906	1,741,371	785	39.14	4.99
	1935	45,451	35,402	1,795,683	779	39.51	5.07
	1936	46,478	36,044	1,851,794	776	39.84	5.14
	1937	46,630	37,234	1,852,503	798	39.73	4.98
	1938	48,060	39,077	1,903,731	813	39.61	4.87
Change (Changement) 1930-1938							
Amount (Volume)		+ 2,283	+ 3,697	- 1,526	+ 40	- 2.01	- 0.52
Per cent (p.c.)		+ 5.0	+ 10.5	- 0.08	+ 5.2	- 4.8	- 9.6
<b>ALBERTA</b> .....							
	1930	57,190	30,458	1,674,340	533	29.28	5.50
	1931	56,890	30,196	1,721,292	531	30.23	5.70
	1932	57,459	29,792	1,714,412	518	29.84	5.75
	1933	57,330	29,668	1,738,351	517	30.15	5.83
	1934	58,375	30,378	1,764,295	520	30.22	5.81
	1935	58,127	31,636	1,714,128	544	29.49	5.42
	1936	59,600	33,481	1,789,422	562	30.02	5.34
	1937	61,121	35,339	1,865,520	578	30.52	5.28
	1938	63,030	38,083	1,983,226	604	31.46	5.21
Change (Changement) 1930-1938							
Amount (Volume)		+ 5,840	+ 7,625	+ 308,886	+ 71	+ 2.18	- 0.29
Per cent (p.c.)		+ 10.2	+ 25.1	+ 18.5	+ 13.3	+ 7.5	- 5.3
<b>BRITISH COLUMBIA ) AND YUKON</b> ) .....							
	1930	125,171	101,742	2,990,515	813	23.89	2.94
	1931	125,748	110,621	3,327,943	880	26.47	3.01
	1932	126,601	110,150	3,348,086	870	26.45	3.04
	1933	127,647	109,479	3,357,638	858	26.30	3.07
	1934	129,837	106,590	3,277,787	821	25.25	3.08
	1935	134,267	115,026	3,419,710	857	25.47	2.97
	1936	138,558	127,788	3,617,603	922	26.11	2.83
	1937	144,130	134,414	3,779,392	933	26.22	2.81
	1938	150,955	147,613	4,086,919	978	27.07	2.77
Change (Changement) 1930-1938							
Amount (Volume)		+ 25,784	+ 45,871	+ 1,096,404	+ 165	+ 3.18	- 0.17
Per cent (p.c.)		+ 20.6	+ 45.1	+ 36.7	+ 20.3	+ 13.3	- 5.8



TABLE 3 - ELECTRIC POWER PLANTS, 1938

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Total number of generating stations .....	589	9	48	13	97
Per cent of total for Canada .....	100.00	1.53	8.15	2.21	16.47
<u>COMMERCIAL</u> .....	406	7	21	9	82
Hydraulic .....	205	5	11	4	80
Fuel .....	201	2	10	5	2
<u>MUNICIPAL</u> .....	183	2	27	4	15
Hydraulic .....	108	..	19	3	13
Fuel .....	75	2	8	1	2
With water wheels and turbines .....	313	5	30	7	93
With steam engines only .....	30	..	2	1	..
With steam turbines only .....	24	1	6	1	1
With gas or oil engines only .....	216	3	10	3	3
With both steam engines and turbines .....	5	..	..	1	..
With both steam and gas or oil engines .....	1	..	..	..	..
With alternating current dynamos only .....	460	9	45	9	94
With direct current dynamos only .....	127	..	3	3	3
With both alternating and direct current dynamos .....	2	..	..	1	..
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 383	8	22	21	71
Number generating power .....	X 289	6	13	9	46
Number buying power for redistribution .....	94	2	9	12	25
<u>MUNICIPALITIES</u> .....	X 467	2	27	11	30
Number generating power .....	X 81	2	9	3	11
Number buying power for redistribution .....	386	..	18	8	19
<u>AUXILIARY PLANTS</u> .....	64	2	9	3	5
To hydraulic stations .....	40	2	3	..	4
To non-generating stations .....	24	..	6	3	1

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.

TABLEAU 3 - USINES GENERATRICES, 1938

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
135	31	123	62	71	<u>Nombre d'usines génératrices</u>
22.92	5.26	20.88	10.53	12.05	<u>Pourcentage du total pour le Canada</u>
61	18	92	53	63	<u>COMMERCIALES</u>
57	4	..	4	40	Hydrauliques
4	14	92	49	23	A combustible
74	13	31	9	8	<u>MUNICIPALES</u>
65	2	..	1	5	Hydrauliques
9	11	31	8	3	A combustible
122	6	..	5	45	Avec roues et turbines hydrauliques
8	3	..	11	5	Avec machines à vapeur seulement
..	1	6	4	4	Avec turbines à vapeur seulement
5	20	115	40	17	Avec moteurs à gaz ou à pétrole seulement
..	..	2	2	..	Avec machines et turbines à vapeur à la fois
..	1	..	..	..	Avec machines à vapeur à gaz et à pétrole
133	27	47	31	65	Avec dynamos à courant alternatif seulement
2	4	76	30	6	Avec dynamos à courant direct seulement
..	..	..	1	..	Avec dynamos à courant alternatif et direct
47	21	75	56	64	<u>USINES COMMERCIALES</u>
39	14	75	45	46	Nombre d'usines génératrices
8	7	2	11	18	Nombre d'usines achetant de l'électricité pour la revendre
329	18	21	17	17	<u>MUNICIPALITES</u>
18	12	15	9	7	Nombre d'usines génératrices
311	6	6	8	10	Nombre d'usines achetant de l'électricité pour la revendre
11	6	..	9	19	<u>USINES AUXILIAIRES</u>
7	2	..	8	14	Aux usines hydrauliques
4	4	..	1	5	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.

TABLE 4 - CAPITAL, 1938

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<b>TOTAL CAPITAL</b> .....	1,545,416,592	1,276,745	33,595,821	33,828,777	668,410,299
Per cent of total for Canada .....	100.00	0.08	2.17	2.19	43.25
Generation .....	919,191,026	712,879	20,596,301	23,055,071	469,300,606
Transmission and distribution .....	519,732,649	483,150	10,928,448	9,458,884	154,560,666
General .....	106,492,917	80,716	2,071,072	1,314,822	44,549,027
<b>TOTAL CAPITAL IN COMMERCIAL STATIONS</b> .....	1,002,891,485	1,077,477	15,988,622	22,961,461	659,399,061
Generation .....	682,928,568	579,001	7,581,120	18,648,706	464,524,486
Transmission and distribution .....	252,388,057	456,442	6,675,837	3,549,794	150,796,363
General .....	67,574,860	62,034	1,731,665	762,961	44,078,212
Non-generating stations .....	39,288,441	7,000	6,138,546	2,057,238	746,842
Generating stations .....	963,603,044	1,070,477	9,850,076	20,904,223	658,652,219
Hydraulic stations .....	939,505,585	120,671	4,627,980	17,618,491	658,612,221
Fuel stations .....	24,097,459	949,806	5,222,096	3,285,732	39,998
<b>TOTAL CAPITAL IN MUNICIPAL STATIONS</b> .....	542,525,107	199,268	17,607,199	10,867,316	9,011,238
Generation .....	236,262,458	133,878	15,015,181	4,406,365	4,776,120
Transmission and distribution .....	267,344,592	46,708	4,252,611	5,909,090	3,764,303
General .....	38,918,057	18,682	339,407	551,861	470,815
Non-generating stations .....	129,007,862	...	1,679,923	1,301,341	2,598,907
Generating stations .....	413,517,245	199,268	15,927,276	9,565,975	6,412,331
Hydraulic stations .....	392,110,762	...	15,271,288	5,524,907	6,103,615
Fuel stations .....	21,406,483	199,268	655,988	4,041,068	308,716
<b>TOTAL CAPITAL IN NON-GENERATING STATIONS</b> .....	168,296,303	7,000	7,818,469	3,358,579	3,345,749
Generation .....	3,629,204	...	1,727,791	349,006	696,888
Transmission and distribution .....	143,076,727	7,000	4,767,243	2,355,964	2,441,152
General .....	21,590,372	...	1,323,435	653,609	207,709
<b>TOTAL CAPITAL IN GENERATING STATIONS</b> .....	1,377,120,289	1,269,745	25,777,352	30,470,198	665,064,550
Generation .....	915,561,822	712,879	18,868,510	22,706,065	468,603,718
Transmission and distribution .....	376,655,922	476,150	6,161,205	7,102,920	152,119,514
General .....	84,902,545	80,716	747,637	661,213	44,341,318
Hydraulic stations .....	1,331,616,347	120,671	19,899,268	23,143,398	664,715,856
Fuel stations .....	45,503,942	1,149,074	5,878,084	7,326,800	348,714
<b>TOTAL CAPITAL</b> .....					
Average per H.P. of primary power .....	207	153	211	243	187
Average per H.P. including auxiliary equipment.	201	150	196	238	185
Average per Kv.A. of dynamo capacity .....	244	204	249	286	212
Average per Kv.A. including auxiliary equipment	238	203	231	281	209
<b>GENERATION</b> .....					
Average cost per H.P. (including auxiliary equipment)					
In all generating stations .....	120	84	118	163	130
In hydraulic stations .....	122	136	158	178	130
In fuel stations .....	80	80	61	117	72

X - Capital invested in one hydraulic station in Saskatchewan included in Manitoba.



TABEAU 4 - CAPITAL, 1938

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
557,114,444	X81,866,853	X25,827,398	28,383,629	115,112,626	<u>TOTAL CAPITAL</u>
36.05	5.30	1.67	1.84	7.45	Pourcentage du total pour le Canada
274,489,196	47,698,129	12,629,566	12,992,262	57,717,016	Génération
243,645,368	30,581,417	11,887,521	13,928,586	44,258,609	Transmission et distribution
38,979,880	3,587,507	1,310,311	1,462,781	13,137,001	Généralités
109,546,222	46,016,925	12,292,017	22,639,127	112,970,573	<u>TOTAL CAPITAL DANS LES USINES COMMERCIALES</u>
84,069,659	33,825,768	5,915,848	10,797,321	56,986,659	Génération
19,999,867	11,612,495	5,541,385	10,786,607	42,989,267	Transmission et distribution
5,476,696	578,662	834,784	1,055,199	12,994,647	Généralités
2,878,979	1,085,292	1,783,020	113,177	24,478,347	Usines non-génératrices
106,667,243	44,931,633	10,508,997	22,525,950	88,492,226	Usines génératrices
106,644,339	44,554,885	...	19,330,801	87,996,197	Usines hydrauliques
22,904	376,748	10,508,997	3,195,149	496,029	Usines à combustible
447,568,222	35,849,928	13,535,381	5,744,502	2,142,053	<u>TOTAL CAPITAL DANS LES USINES MUNICIPALES</u>
190,419,537	13,872,361	6,713,718	2,194,941	730,357	Génération
223,645,501	18,968,922	6,346,136	3,141,979	1,269,342	Transmission et distribution
33,503,184	3,008,645	475,527	407,582	142,354	Généralités
112,694,719	5,867,546	1,623,501	2,182,332	1,059,593	Usines non-génératrices
334,875,503	29,982,382	11,911,880	3,562,170	1,082,460	Usines génératrices
334,654,038	29,273,000	...	246,465	1,037,449	Usines hydrauliques
219,465	709,382	11,911,880	3,315,705	46,011	Usines à combustible
115,573,698	6,952,838	3,406,521	2,295,509	25,537,940	<u>TOTAL CAPITAL DANS LES USINES NON-GENERATRICES</u>
183,248	396,340	...	20,000	255,931	Génération
100,528,795	5,622,401	3,127,893	2,128,431	22,099,848	Transmission et distribution
14,861,655	934,097	278,628	149,078	3,182,161	Généralités
441,540,746	74,914,015	22,420,877	26,088,120	89,574,686	<u>TOTAL CAPITAL DANS LES USINES GENERATRICES</u>
274,305,948	47,301,789	12,629,566	12,972,262	57,461,085	Génération
143,116,573	24,959,016	8,759,628	11,802,155	22,158,761	Transmission et distribution
24,118,225	2,653,210	1,031,683	1,313,703	9,954,840	Généralités
441,298,377	73,827,885	...	19,577,266	89,033,646	Usines hydrauliques
242,369	1,086,130	22,420,877	6,510,854	541,040	Usines à combustible
247	168	183	219	195	<u>TOTAL CAPITAL</u>
243	158	183	189	180	Moyenne par H.P. de la machinerie d'énergie primaire
308	208	217	272	238	Moyenne par H.P. y compris machinerie auxiliaire
302	194	217	233	220	Moyenne par Kv.A. de la capacité des dynamos
					Moyenne par Kv.A. y compris machinerie auxiliaire
					<u>GENERATION</u>
					Moyenne par H.P. y compris machinerie auxiliaire
120	92	90	87	90	Dans les usines génératrices
120	92	..	111	90	Dans les usines hydrauliques
118	141	90	50	76	Dans les usines à combustible

X - Capital engagé dans une usine hydraulique de la Saskatchewan inclus sous Manitoba.

TABLE 5 - REVENUE, 1938

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	144,331,627	313,187	5,350,038	/ 3,611,662	/ 53,259,723
For domestic service .....	41,302,107	150,994	1,595,086	1,232,937	8,669,034
For commercial light .....	24,285,923	99,163	908,317	567,944	7,116,728
For power (small) .....	9,495,609	25,421	351,370	234,410	2,464,031
For power (large) .....	64,401,637	17,072	2,278,292	1,462,482	33,809,434
For street lighting .....	4,848,351	20,537	196,973	113,889	1,200,496
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	87,697,078	250,586	3,387,619	2,295,845	51,763,724
Non-generating .....	6,031,002	1,858	1,244,252	408,673	141,217
Generating .....	81,666,076	248,728	2,143,367	1,887,172	51,622,507
Hydraulic .....	76,878,597	24,626	649,775	1,429,333	51,598,326
Fuel .....	4,787,479	224,102	1,493,592	457,839	24,181
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	56,634,549	62,601	1,942,419	1,315,817	1,495,999
Non-generating .....	17,515,686	...	424,546	366,017	578,593
Generating .....	39,118,863	62,601	1,517,873	949,800	917,606
Hydraulic .....	35,950,291	...	1,376,142	617,175	845,749
Fuel .....	5,168,572	62,601	141,731	332,625	71,857
Revenue of non-generating stations .....	23,546,688	1,858	1,668,798	774,690	719,610
Revenue of generating stations .....	120,784,939	311,529	3,661,240	2,836,972	52,540,113
Revenue of hydraulic stations .....	110,808,888	24,626	2,025,917	2,046,508	52,444,075
Revenue of fuel stations .....	9,976,051	286,703	1,635,323	790,464	96,038
Average revenue per H.P. of primary power .....	19.30	37.44	33.50	25.94	14.92
Average revenue per H.P. in main and auxiliary plants	18.81	36.72	31.10	25.40	14.77
Average revenue per Kv.A. of dynamo capacity .....	22.81	50.06	39.45	30.50	16.87
Average revenue per Kv.A. in main and auxiliary plants	22.22	49.68	36.64	29.95	16.69
Average revenue per kilowatt hour consumed ..... Cents	.55	4.45	1.32	.77	.39
Average revenue per domestic service customer .....	26.49	31.46	27.24	28.31	20.58
Average revenue per commercial light customer .....	93.44	85.41	88.01	88.16	98.29
Average revenue per small power customer .....	226.09	182.88	175.60	228.69	205.03
Average revenue per large power customer .....	6,345.75	2,438.86	15,932.11	8,309.56	27,156.17
Average revenue per kilowatt hour - domestic and farm service ..... Cents	1.90	5.85	4.52	4.86	3.02
Average revenue per kilowatt hour - commercial light ..... Cents	2.35	6.21	4.70	3.37	2.84

/ Affected by power purchased from another province.

X Adjusted for power purchased from Quebec plants on the basis of 88 kw.h per h.p. per week.

TABLEAU 5 - RECETTES, 1938

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
58,175,905	7,926,813	4,787,862	5,574,481	13,914,227	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
18,456,575	3,223,605	1,903,731	1,983,226	4,086,919	Pour éclairage domestique
8,301,892	1,530,522	1,331,258	1,563,441	2,864,658	Pour éclairage commercial
3,856,024	370,019	657,421	704,874	832,039	Pour force motrice (petite)
25,478,339	2,566,512	617,807	1,043,880	5,690,090	Pour force motrice (grosse)
2,083,075	236,155	277,645	279,060	440,521	Pour éclairage des rues
10,865,083	3,744,953	1,796,704	2,605,275	13,156,565	<u>RECETTES DES USINES COMMERCIALES</u>
1,729,431	172,214	141,773	80,571	3,449,124	Non-génératrices
9,135,652	3,572,739	1,654,931	2,524,704	9,707,441	Génératrices
9,123,747	3,488,225	...	1,849,698	9,546,032	Hydrauliques
11,905	84,514	1,654,931	675,006	161,409	A combustible
47,310,822	4,181,860	2,991,158	2,969,206	757,662	<u>RECETTES DES USINES MUNICIPALES</u>
13,232,286	822,027	615,971	1,086,250	439,112	Non-génératrices
34,078,536	3,359,833	2,375,187	1,882,956	318,550	Génératrices
33,985,930	3,127,537	...	42,190	279,647	Hydrauliques
92,606	232,296	2,375,187	1,840,766	36,903	A combustible
14,961,717	994,241	757,744	1,166,821	3,888,236	Recettes des usines non-génératrices
43,214,188	6,932,572	4,030,118	4,407,660	10,025,991	Recettes des usines génératrices
43,109,677	6,615,762	...	1,891,888	9,825,679	Recettes des usines hydrauliques
104,511	316,810	4,030,118	2,515,772	200,312	Recettes des usines à combustible
X 20.30	16.30	34.02	42.96	23.58	Moyenne de recettes par H.P. de machinerie primaire
X 20.00	15.32	34.02	37.15	21.72	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
X 25.65	20.15	40.22	53.40	28.79	Moyenne de recettes par Kv.A. de capacité de dynamos
X 25.27	18.78	40.22	45.74	26.56	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
.56	.47	3.12	2.37	.71	Moyenne de recettes par Kw. heure (cents)
26.69	41.45	39.61	31.46	27.07	Moyenne de recettes par abonnés d'éclairage domestique
89.98	90.06	91.37	83.94	105.69	Moyenne de recettes par abonnés d'éclairage commercial
296.21	129.42	227.01	158.22	231.69	Moyenne de recettes par abonnés pour petite force motrice
7,254.65	906.25	4,680.35	3,313.90	3,178.82	Moyenne de recettes par abonnés pour grosse force motrice
1.44	1.03	4.87	5.21	2.77	Moyenne de recettes par Kw. heure - service domestique et de ferme (cents)
1.63	2.01	5.88	4.75	2.78	Moyenne de recettes par Kw. heure - service commercial (cents)

/ Affecté par énergie achetée d'une autre province.

X Adjusté pour achats de courant des usines du Québec sur une base de 88 kw.h. par h.p. par semaine.



TABLE 6 - EXPENSES, 1938

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL EXPENSES</u> .....	87,364,340	149,215	3,673,809	1,814,721	20,587,448
Per cent of total for Canada .....	100.00	0.17	4.20	2.08	23.57
Salaries and wages .....	27,148,688	70,714	1,206,079	577,016	6,560,050
Fuel .....	2,010,902	53,394	475,196	206,151	31,951
Taxes .....	10,596,488	23,990	414,134	169,940	5,538,554
Cost of power .....	47,808,262	1,117	1,578,400	861,614	8,456,893
<u>TOTAL FOR COMMERCIAL STATIONS</u> .....	41,067,938	127,552	2,893,931	980,302	19,991,553
Salaries and wages .....	13,102,328	60,676	897,507	306,326	6,292,137
Fuel .....	1,040,582	41,769	459,311	103,859	7,400
Taxes .....	9,549,840	23,990	400,168	169,587	5,528,919
Cost of power .....	17,375,248	1,117	1,186,945	400,530	8,163,097
Non-generating stations .....	8,585,528	1,127	1,480,797	633,006	88,007
Generating stations .....	32,482,470	126,425	1,413,134	347,296	19,903,546
Hydraulic stations .....	29,772,262	12,301	252,330	123,062	19,890,307
Fuel stations .....	2,710,208	114,124	1,160,804	224,234	13,239
<u>TOTAL FOR MUNICIPAL STATIONS</u> .....	46,296,342	21,663	779,878	834,419	595,895
Salaries and wages .....	14,046,360	10,038	308,572	270,690	267,913
Fuel .....	970,320	11,625	15,885	102,292	24,551
Taxes .....	846,648	...	13,936	353	9,635
Cost of power .....	30,433,014	...	441,455	461,084	293,796
Non-generating stations .....	29,832,390	...	503,871	404,710	384,683
Generating stations .....	16,463,952	21,663	276,007	429,709	211,212
Hydraulic stations .....	14,334,742	...	185,376	253,084	175,334
Fuel stations .....	2,129,210	21,663	90,631	176,625	35,878
<u>EXPENSES FOR NON GENERATING STATIONS</u> ...	38,417,918	1,127	1,984,668	1,037,716	472,690
Salaries and wages .....	8,044,828	...	571,374	241,080	143,764
Fuel .....	2,012	...	1,525	...	...
Taxes .....	1,167,969	10	251,012	89,668	2,056
Cost of power .....	29,203,109	1,117	1,160,757	706,968	326,870
<u>TOTAL EXPENSES FOR GENERATING STATIONS</u> .....	48,946,422	148,088	1,689,141	777,005	20,114,758
Salaries and wages .....	19,103,860	70,714	634,705	335,936	6,416,286
Fuel .....	2,008,890	53,394	473,671	206,151	31,951
Taxes .....	9,228,519	23,980	163,122	80,272	5,536,498
Cost of power .....	18,605,153	...	417,643	154,646	8,130,023
Hydraulic stations .....	44,107,004	12,301	437,706	376,143	20,065,641
Fuel stations .....	4,839,418	135,787	1,251,435	400,859	49,117

TABLEAU 6 - DEPENSES, 1938

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
45,594,888	2,548,534	2,544,863	2,367,522	8,083,340	<u>TOTAL DES DEPENSES</u>
52.19	2.92	2.91	2.71	9.25	Pourcentage du total pour le Canada
12,352,767	1,873,400	864,578	963,982	2,680,102	Salaires et gages
35,271	76,114	768,141	293,294	71,390	Combustible
1,680,321	209,976	191,855	446,304	1,721,414	Taxes
31,526,529	389,044	720,289	663,942	3,610,434	Achat d'énergie électrique
6,615,137	1,084,512	869,096	837,303	7,668,612	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,552,303	709,454	333,817	441,912	2,528,196	Salaires et gages
4,473	16,968	274,649	69,223	62,930	Combustible
1,202,483	119,034	144,275	239,970	1,721,414	Taxes
3,875,878	239,056	116,355	86,198	3,356,072	Achat d'énergie électrique
1,425,020	272,641	111,202	47,596	4,526,132	Usines non-génératrices
5,190,117	811,871	757,894	789,707	3,142,480	Usines génératrices
5,185,030	771,463	...	480,422	3,057,347	Usines hydrauliques
5,087	40,408	757,894	309,285	85,133	Usines à combustible
38,979,751	1,464,022	1,675,767	1,530,219	414,728	<u>TOTAL POUR LES USINES MUNICIPALES</u>
10,820,464	1,163,946	530,761	522,070	151,906	Salaires et gages
30,798	59,146	493,492	224,071	8,460	Combustible
477,838	90,942	47,580	206,334	...	Taxes
27,650,651	149,988	603,934	577,744	254,362	Achat d'énergie électrique
26,278,707	383,019	692,123	847,754	337,523	Usines non-génératrices
12,701,044	1,081,003	983,644	682,465	77,205	Usines génératrices
12,673,974	973,715	...	12,048	61,211	Usines hydrauliques
27,070	107,288	983,644	670,417	15,994	Usines à combustible
27,703,727	655,660	803,325	895,350	4,863,655	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
5,281,084	251,468	108,988	213,946	1,233,124	Salaires et gages
118	369	...	...	...	Combustible
144,509	14,779	50,740	67,841	547,554	Taxes
22,278,216	389,044	643,597	613,563	3,082,977	Achat d'énergie électrique
17,891,161	1,892,874	1,741,538	1,472,172	3,219,685	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
7,071,683	1,621,932	755,590	750,036	1,446,978	Salaires et gages
35,153	75,745	768,141	293,294	71,390	Combustible
1,536,012	195,197	141,115	378,463	1,173,860	Taxes
9,248,313	...	76,692	50,379	527,457	Achat d'énergie électrique
17,859,004	1,745,178	...	492,470	3,118,558	Usines hydrauliques
32,157	147,696	1,741,538	979,702	101,127	Usines à combustible

TABLE 7 - EMPLOYEES, 1938

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	17,929	65	1,060	504	4,405
Per cent of total for Canada .....	100.00	0.36	5.91	2.81	24.57
Officers, clerks, other salaried employees, etc..	7,189	40	354	241	1,420
Employees on wages .....	10,740	25	706	263	2,985
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	8,917	54	734	274	4,178
Officers, clerks, other salaried employees, etc..	3,124	29	214	109	1,320
Employees on wages .....	5,793	25	520	165	2,858
Non-generating .....	1,338	..	350	131	23
Generating .....	7,579	54	384	143	4,155
Hydraulic .....	6,889	12	242	60	4,150
Fuel .....	690	42	142	83	5
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	9,012	11	326	230	227
Officers, clerks, other salaried employees, etc..	4,065	11	140	132	100
Employees on wages .....	4,947	..	186	98	127
Non-generating .....	4,128	..	86	77	86
Generating .....	4,884	11	240	153	141
Hydraulic .....	4,221	..	203	98	129
Fuel .....	663	11	37	55	12
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	5,466	..	436	208	109
Officers, clerks, other salaried employees, etc..	2,809	..	206	110	54
Employees on wages .....	2,657	..	230	98	55
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	12,463	65	624	296	4,296
Officers, clerks, other salaried employees, etc..	4,380	40	148	131	1,366
Employees on wages .....	8,083	25	476	165	2,930
Hydraulic .....	11,110	12	445	158	4,279
Fuel .....	1,353	53	179	138	17



TABLEAU 7 - EMPLOYES, 1938

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
7,524	1,411	566	631	1,763	<u>TOTAL DU PERSONNEL OCCUPE</u>
41.97	7.87	3.16	3.52	9.83	Pourcentage du total pour le Canada
2,926	865	248	338	757	Administrateurs, directeurs, commis et tous employés des bureaux
4,598	546	318	293	1,006	Ouvriers et journaliers
1,010	490	239	281	1,657	<u>PERSONNEL DES USINES COMMERCIALES</u>
282	193	113	177	687	Administrateurs, directeurs, commis et tous employés des bureaux
728	297	126	104	970	Ouvriers et journaliers
39	16	18	12	749	Non-génératrices
971	474	221	269	908	Génératrices
967	449	..	151	858	Hydrauliques
4	25	221	118	50	Combustible
6,514	921	327	350	106	<u>PERSONNEL DES USINES MUNICIPALES</u>
2,644	672	135	161	70	Administrateurs, directeurs, commis et tous employés des bureaux
3,870	249	192	189	36	Ouvriers et journaliers
3,366	257	56	142	58	Non-génératrices
3,148	664	271	208	48	Génératrices
3,135	605	..	8	43	Hydrauliques
13	59	271	200	5	Combustible
3,405	273	74	154	807	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,690	114	40	97	498	Administrateurs, directeurs, commis et tous employés des bureaux
1,715	159	34	57	309	Ouvriers et journaliers
4,119	1,138	492	477	956	<u>PERSONNEL DES USINES GENERATRICES</u>
1,236	751	208	241	259	Administrateurs, directeurs, commis et tous employés des bureaux
2,883	387	284	236	697	Ouvriers et journaliers
4,102	1,054	..	159	901	Hydrauliques
17	84	492	318	55	Combustible

TABLE 8 - NUMBER OF CUSTOMERS, 1938

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>NUMBER OF CUSTOMERS</b> .....	1,873,621	6,116	71,099	51,239	507,584
Per cent of total for Canada .....	100.00	0.33	3.80	2.73	27.09
Domestic service .....	1,559,394	4,799	58,556	43,556	421,179
Commercial light .....	259,893	1,161	10,321	6,442	72,405
Power (small) .....	41,999	139	2,001	1,025	12,018
Power (large) .....	10,152	7	143	176	1,245
Street lighting .....	2,183	10	78	40	736
<b>COMMERCIAL STATIONS</b> .....	859,506	4,892	45,050	24,013	468,604
Domestic service .....	698,993	3,919	37,040	19,415	386,967
Commercial light .....	134,027	890	6,633	3,809	68,684
Power (small) .....	20,654	69	1,260	711	11,096
Power (large) .....	4,553	6	71	57	1,151
Street lighting .....	1,279	8	46	21	704
Non-generating .....	186,642	123	33,716	15,096	4,330
Generating .....	672,864	4,769	11,334	8,917	464,270
Hydraulic .....	619,735	717	7,584	600	463,860
Fuel .....	53,129	4,052	3,750	8,317	41,410
<b>MUNICIPAL STATIONS</b> .....	1,014,115	1,224	26,049	27,226	38,980
Domestic service .....	860,401	880	21,516	24,141	34,210
Commercial light .....	125,866	271	3,688	2,633	3,770
Power (small) .....	21,345	70	741	314	940
Power (large) .....	5,599	1	72	119	1,110
Street lighting .....	904	2	32	19	1,110
Non-generating .....	732,182	...	18,114	13,833	19,800
Generating .....	281,933	1,224	7,935	13,393	19,180
Hydraulic .....	208,398	...	3,914	8,490	18,110
Fuel .....	73,535	1,224	4,021	4,903	9,070
<b>NON-GENERATING STATIONS</b> .....	918,824	123	51,850	28,929	24,200
Domestic service .....	769,714	89	42,679	24,234	21,000
Commercial light .....	125,295	33	7,478	4,017	2,400
Power (small) .....	18,430	...	1,559	538	1,100
Power (large) .....	4,732	...	75	116	1,100
Street lighting .....	653	1	39	24	1,100
<b>GENERATING STATIONS</b> .....	954,797	5,993	19,269	22,310	485,000
Hydraulic stations .....	828,133	717	11,498	9,090	481,000
Domestic service .....	695,189	610	9,498	8,275	399,000
Commercial light .....	108,357	103	1,695	695	69,000
Power (small) .....	18,465	...	231	86	11,000
Power (large) .....	4,992	1	47	25	1,000
Street lighting .....	1,130	3	27	9	1,000
<b>Fuel Stations</b> .....	126,664	5,276	7,771	13,220	1,000
Domestic service .....	94,491	4,100	6,379	11,047	1,000
Commercial light .....	26,241	1,025	1,148	1,730	1,000
Power (small) .....	5,104	139	211	401	1,000
Power (large) .....	428	6	21	35	1,000
Street lighting .....	400	6	12	7	1,000
Average number of domestic service customers per 100 of population .....	13.92	5.11	10.69	9.79	1

TABLEAU 8 - NOMBRE D'USAGERS, 1938

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
10,868	100,605	65,966	86,623	183,521	<u>NOMBRE D'USAGERS</u>
12.74	5.37	3.52	4.62	9.80	Pourcentage du total pour le Canada
1,498	77,762	48,060	63,030	150,955	Service domestique
2,268	16,994	14,570	18,626	27,104	Eclairage commercial
3,018	2,859	2,896	4,455	3,588	Force motrice (petite)
3,512	2,832	132	315	1,790	Force motrice (grosse)
572	158	308	197	84	Eclairage des rues
1,459	31,063	24,817	27,199	164,409	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
1,559	22,458	17,395	17,872	135,568	Service domestique
1,585	7,019	6,263	7,037	24,107	Eclairage commercial
1,202	385	953	2,048	2,928	Force motrice (petite)
253	1,176	39	62	1,738	Force motrice (grosse)
60	25	167	180	68	Eclairage des rues
1,245	7,178	2,845	2,146	116,963	Non-génératrices
1,214	23,885	21,972	25,053	47,446	Génératrices
1,917	22,239	...	14,410	45,407	Hydrauliques
297	1,646	21,972	10,643	2,039	Combustible
1,409	69,542	41,149	59,424	19,112	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
1,139	55,304	30,665	45,158	15,387	Service domestique
1,683	9,975	8,307	11,589	2,997	Eclairage commercial
1,816	2,474	1,943	2,407	660	Force motrice (petite)
1,259	1,656	93	253	52	Force motrice (grosse)
512	133	141	17	16	Eclairage des rues
1,768	15,363	14,578	28,618	14,036	Non-génératrices
1,641	54,179	26,571	30,806	5,076	Génératrices
1,479	50,289	...	752	4,342	Hydrauliques
1,162	3,890	26,571	30,054	734	Combustible
1,013	22,541	17,423	30,764	130,999	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
1,678	17,692	12,935	23,727	108,609	Service domestique
1,420	3,861	3,499	5,836	18,677	Eclairage commercial
1,848	732	889	1,137	2,134	Force motrice (petite)
1,755	133	46	49	1,539	Force motrice (grosse)
312	123	54	15	40	Eclairage des rues
1,855	78,064	48,543	55,859	52,522	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
1,396	72,528	...	15,162	49,749	Usines hydrauliques
1,602	56,080	...	9,797	40,252	Service domestique
1,655	11,916	...	3,856	7,824	Eclairage commercial
1,128	1,852	...	1,378	1,397	Force motrice (petite)
755	2,670	...	28	243	Force motrice (grosse)
256	10	...	103	33	Eclairage des rues
1,459	5,536	48,543	40,697	2,773	<u>Usines à combustible</u>
1,218	3,990	35,125	29,506	2,094	Service domestique
193	1,217	11,071	8,934	603	Eclairage commercial
42	275	2,007	1,940	57	Force motrice (petite)
2	29	86	238	8	Force motrice (grosse)
4	25	254	79	11	Eclairage des rues
1.53	10.80	5.11	8.05	19.73	Moyenne de consommateurs d'éclairage électrique par 100 habitants



TABLE 9 - POLE LINE MILEAGE, 1938.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	66,977	247	3,224	2,678	13,144
Per cent of total for Canada .....	100.00	0.37	4.81	4.00	19.63
Miles of steel towers .....	4,644	...	21	214	1,139
Miles of steel poles .....	280	...	1	...	216
Miles of wooden poles .....	59,599	245	3,194	2,462	11,090
Miles of concrete poles .....	554	...	...	...	...
Miles of underground and submarine cables .....	1,900	2	8	2	699
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> ...	29,355	224	1,785	658	12,639
Non-generating .....	4,733	10	725	267	282
Generating .....	24,622	214	1,060	391	12,357
Hydraulic .....	21,934	52	860	167	12,345
Fuel .....	2,688	162	200	224	12
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> ....	37,622	23	1,439	2,020	505
Non-generating .....	9,871	...	431	196	169
Generating .....	27,751	23	1,008	1,824	336
Hydraulic .....	24,267	...	816	936	316
Fuel .....	3,484	23	192	888	20
<u>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</u>	14,604	10	1,156	463	451
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> ...	52,373	237	2,068	2,215	12,693
Hydraulic .....	46,201	52	1,676	1,103	12,661
Fuel .....	6,172	185	392	1,112	32

TABLE 10 - AUXILIARY PLANT EQUIPMENT, 1938

<u>TOTAL PRIMARY POWER</u> ..... H.P.	195,628	165	12,253	2,950	36,297
Per cent of total for Canada .....	100.00	0.08	6.26	1.51	18.56
Steam reciprocating engines ..... No.	33	1	9	3	1
Total capacity ..... H.P.	13,616	75	3,913	1,025	25
Steam turbines ..... No.	45	...	3	3	8
Total capacity ..... H.P.	172,604	...	7,390	1,925	36,224
Gas and oil engines ..... No.	49	2	6	...	2
Total capacity ..... H.P.	9,408	90	950	...	48
<u>TOTAL SECONDARY POWER</u> ..... Kv.A.	166,660	48	10,339	2,185	33,125
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	131,500	165	11,590	2,950	25,573
Steam reciprocating engines ..... No.	21	1	7	3	1
Total capacity ..... H.P.	8,918	75	3,490	1,025	25
Steam turbines ..... No.	36	...	3	3	6
Total capacity ..... H.P.	115,740	...	7,390	1,925	25,500
Gas and oil engines ..... No.	33	2	3	...	2
Total capacity ..... H.P.	6,842	90	710	...	48
<u>TOTAL SECONDARY POWER</u> ..... Kv.A.	110,408	48	9,803	2,185	23,125
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	64,128	...	663	...	10,724
Steam reciprocating engines ..... No.	12	...	2	...	...
Total capacity ..... H.P.	4,698	...	423	...	...
Steam turbines ..... No.	9	...	...	...	2
Total capacity ..... H.P.	56,864	...	...	...	10,724
Gas and oil engines ..... No.	16	...	3	...	...
Total capacity ..... H.P.	2,566	...	240	...	...
<u>TOTAL SECONDARY POWER</u> ..... Kv.A.	56,252	...	536	...	10,000

TABEAU 9 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1938

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
30,593	3,673	3,877	4,113	5,428	<u>LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX</u>
45.68	5.48	5.79	6.14	8.10	Pourcentage du total pour tout le Canada
2,460	743	...	28	39	Milles de pylones d'acier
63	...	...	...	...	Milles de poteaux d'acier
26,533	2,899	3,852	4,027	5,297	Milles de poteaux de bois
554	...	...	...	...	Milles de poteaux de ciment
983	31	25	58	92	Milles de câbles souterrains et sous-marins
2,532	1,436	1,837	3,276	4,968	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
216	210	746	42	2,235	Non-génératrices
2,316	1,226	1,091	3,234	2,733	Génératrices
2,308	1,141	...	2,389	2,672	Hydrauliques
8	85	1,091	845	61	A combustible
28,061	2,237	2,040	837	460	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
6,748	1,434	184	404	305	Non-génératrices
21,313	803	1,856	433	155	Génératrices
21,284	743	...	35	137	Hydrauliques
29	60	1,856	398	18	A combustible
6,964	1,644	930	446	2,540	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
23,629	2,029	2,947	3,667	2,888	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GENERATRICES</u>
23,592	1,884	...	2,424	2,809	Hydrauliques
37	145	2,947	1,243	79	A combustible

TABEAU 10 - OUTILLAGE AUXILIAIRE, 1938

42,171	31,090	...	20,503	50,399	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
21.56	15.89	...	10.38	25.76	Pourcentage du total pour tout le Canada
5	1	...	8	5	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,700	1,750	...	3,853	1,275	Capacité totale ..... H.P.
5	7	...	4	15	Turbines à vapeur ..... Nomb.
38,500	28,490	...	15,000	45,075	Capacité totale ..... H.P.
6	7	...	9	17	Moteurs à gaz et à pétrole ..... Nomb.
1,971	850	...	1,450	4,049	Capacité totale ..... H.P.
34,222	28,711	...	17,472	40,558	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
10,575	12,000	...	20,063	48,584	<u>USINES COMMERCIALES</u>
...	...	...	8	1	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
...	...	...	3,853	450	Machines à vapeur, à mouvement alternatif ..... Nomb.
3	3	...	4	14	Capacité totale ..... H.P.
9,000	12,000	...	15,000	44,925	Turbines à vapeur ..... Nomb.
4	...	...	7	15	Capacité totale ..... H.P.
1,575	...	...	1,210	3,209	Moteurs à gaz et à pétrole ..... Nomb.
7,657	11,250	...	17,287	39,053	Capacité totale ..... H.P.
31,596	19,090	...	240	1,815	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
5	1	...	...	4	<u>USINES MUNICIPALES</u>
1,700	1,750	...	...	825	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
2	4	...	...	1	Machines à vapeur, à mouvement alternatif ..... Nomb.
29,500	16,490	...	...	150	Capacité totale ..... H.P.
2	7	...	2	2	Turbines à vapeur ..... Nomb.
396	850	...	240	840	Capacité totale ..... H.P.
26,565	17,461	...	185	1,505	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
					<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.



TABLE 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1938.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.	7,672,604	8,529	171,378	142,199	3,607,157
Per cent of total for Canada .....	100.00	0.11	2.23	1.85	47.01
Water wheels and turbines ..... No.	816	7	54	16	264
Total capacity ..... H.P.	7,155,601	392	94,389	105,760	3,568,110
Steam reciprocating engines ..... No.	76	1	11	7	1
Total capacity ..... H.P.	23,903	75	4,188	4,025	25
Steam turbines ..... No.	113	4	16	9	9
Total capacity ..... H.P.	449,912	6,680	70,903	32,005	36,374
Gas and oil engines ..... No.	446	11	25	6	9
Total capacity ..... H.P.	43,188	1,382	1,898	409	2,648
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	6,494,528	6,304	145,461	120,588	3,191,110
Per cent of total for Canada .....	100.00	0.10	2.24	1.86	49.13
Dynamos, A.C. .... No.	1,234	19	97	33	276
Total capacity ..... Kv.A.	6,488,697	6,304	145,071	119,643	3,191,079
Dynamos, D.C. .... No.	198	...	7	5	3
Total capacity ..... Kw.	5,831	...	390	945	31
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	5,431,683	7,294	87,123	112,959	3,563,678
Water wheels and turbines ..... No.	534	7	17	10	239
Total capacity ..... H.P.	5,142,432	392	14,184	92,900	3,537,875
Steam reciprocating engines ..... No.	45	1	9	7	1
Total capacity ..... H.P.	14,327	75	3,765	4,025	25
Steam turbines ..... No.	70	4	13	6	7
Total capacity ..... H.P.	250,020	6,680	68,245	15,625	25,650
Gas and oil engines ..... No.	328	5	10	6	4
Total capacity ..... H.P.	24,904	147	929	409	128
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	4,696,681	5,287	76,569	96,265	3,155,885
Dynamos, A.C. .... No.	785	13	40	24	244
Total capacity ..... Kv.A.	4,692,473	5,287	76,179	95,320	3,155,854
Dynamos, D.C. .... No.	173	...	7	5	3
Total capacity ..... Kw.	4,208	...	390	945	31
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	2,240,921	1,235	84,255	29,240	43,479
Water wheels and turbines ..... No.	282	...	37	6	25
Total capacity ..... H.P.	2,013,169	...	80,205	12,860	30,235
Steam reciprocating engines ..... No.	31	...	2	...	...
Total capacity ..... H.P.	9,576	...	423	...	...
Steam turbines ..... No.	43	...	3	3	2
Total capacity ..... H.P.	199,892	...	2,658	16,380	10,724
Gas and oil engines ..... No.	118	6	15	...	5
Total capacity ..... H.P.	18,284	1,235	969	...	2,520
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	1,797,847	1,017	68,892	24,323	35,225
Dynamos, A.C. .... No.	449	6	57	9	32
Total capacity ..... Kv.A.	1,796,224	1,017	68,892	24,323	35,225
Dynamos, D.C. .... No.	25	...	...	...	...
Total capacity ..... Kw.	1,623	...	...	...	...



TABLEAU 11 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1938

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,294,599	517,406	140,750	150,058	640,528	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H.P.
29.91	6.74	1.84	1.96	8.35	Pourcentage du total pour le Canada
342	42	...	11	80	Turbines et roues hydrauliques ..... Nomb.
2,251,013	481,800	...	69,140	584,997	Capacité totale ..... H.P.
14	6	2	24	10	Machines à vapeur, à mouvement alternatif ..... Nomb.
2,175	2,403	1,150	8,118	1,744	Capacité totale ..... H.P.
5	9	24	19	18	Turbines à vapeur ..... Nomb.
38,500	29,740	119,800	67,995	47,915	Capacité totale ..... H.P.
13	48	203	83	48	Moteurs à gaz et à pétrole ..... Nomb.
2,911	3,463	19,800	4,805	5,872	Capacité totale ..... H.P.
1,844,097	422,165	119,036	121,865	523,902	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
28.39	6.50	1.83	1.88	8.07	Pourcentage du total pour le Canada
369	100	117	79	144	Dynamos, C.A. .... Nomb.
1,844,052	421,971	117,781	119,117	523,679	Capacité totale ..... Kv.A.
2	6	110	53	12	Dynamos, C.D. .... Nomb.
45	194	1,255	2,748	223	Capacité totale ..... Kw.
537,664	340,002	56,247	98,378	628,338	<u>USINES COMMERCIALES</u>
159	22	...	9	71	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
526,874	326,800	...	68,180	575,227	Turbines et roues hydrauliques ..... Nomb.
4	...	...	19	4	Capacité totale ..... H.P.
165	...	...	5,408	864	Machines à vapeur, à mouvement alternatif ..... Nomb.
3	3	11	6	17	Capacité totale ..... H.P.
9,000	12,000	44,755	20,300	47,765	Turbines à vapeur ..... Nomb.
5	26	150	79	43	Capacité totale ..... H.P.
1,625	1,202	11,492	4,490	4,482	Moteurs à gaz et à pétrole ..... Nomb.
451,526	272,306	46,378	77,422	515,043	Capacité totale ..... H.P.
168	48	67	58	123	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
451,516	272,267	45,381	75,849	514,820	Dynamos, C.A. .... Nomb.
1	3	92	50	12	Capacité totale ..... Kv.A.
10	39	997	1,573	223	Dynamos, C.D. .... Nomb.
1,756,935	177,404	84,503	51,680	12,190	Capacité totale ..... Kw.
183	20	...	2	9	<u>USINES MUNICIPALES</u>
1,724,139	155,000	...	960	9,770	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
10	6	2	5	6	Turbines et roues hydrauliques ..... Nomb.
2,010	2,403	1,150	2,710	880	Capacité totale ..... H.P.
2	6	13	13	1	Machines à vapeur, à mouvement alternatif ..... Nomb.
29,500	17,740	75,045	47,695	150	Capacité totale ..... H.P.
8	22	53	4	5	Turbines à vapeur ..... Nomb.
1,286	2,261	8,308	315	1,390	Capacité totale ..... H.P.
1,392,571	149,859	72,658	44,443	8,859	Moteurs à gaz et à pétrole ..... Nomb.
201	52	50	21	21	Capacité totale ..... H.P.
1,392,536	149,704	72,400	43,268	8,859	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
1	3	18	3	...	Dynamos, C.A. .... Nomb.
35	155	258	1,175	...	Capacité totale ..... Kv.A.
					Dynamos, C.D. .... Nomb.
					Capacité totale ..... Kw.

TABLE 12 - MAIN PLANT EQUIPMENT, 1938

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada	100.00	0.11	2.13	1.86	47.76
Water wheels and turbines	816	7	54	16	264
Total capacity	7,155,601	392	94,389	105,760	3,568,110
Steam reciprocating engines	43	...	2	4	...
Total capacity	10,287	...	275	3,000	...
Steam turbines	68	4	13	6	1
Total capacity	277,308	6,680	63,513	30,080	150
Gas and oil engines	597	9	19	6	7
Total capacity	53,780	1,292	948	409	2,600
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	0.10	2.13	1.87	49.91
Dynamos, A.C.	1,119	18	82	27	268
Total capacity	6,323,437	6,256	135,032	117,458	3,157,954
Dynamos, D.C.	195	...	6	5	3
Total capacity	4,431	...	90	945	31
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada	100.00	0.13	1.43	2.08	66.75
Water wheels and turbines	534	7	17	10	239
Total capacity	5,142,432	392	14,184	92,900	3,537,875
Steam reciprocating engines	24	...	2	4	...
Total capacity	5,409	...	275	3,000	...
Steam turbines	34	4	10	3	1
Total capacity	134,280	6,680	60,855	13,700	150
Gas and oil engines	295	3	7	6	2
Total capacity	18,062	57	219	409	80
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	0.11	1.46	2.05	68.31
Dynamos, A.C.	707	12	30	18	238
Total capacity	4,583,465	5,239	66,676	93,135	3,132,729
Dynamos, D.C.	170	...	6	5	3
Total capacity	2,808	...	90	945	31
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada	100.00	0.06	3.84	1.34	1.51
Water wheels and turbines	282	...	37	6	25
Total capacity	2,013,169	...	80,205	12,860	30,235
Steam reciprocating engines	19	...	...	...	...
Total capacity	4,878	...	...	...	...
Steam turbines	34	...	3	3	...
Total capacity	143,028	...	2,658	16,380	...
Gas and oil engines	102	6	12	...	5
Total capacity	15,718	1,235	729	...	2,520
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	0.06	3.93	1.40	1.45
Dynamos, A.C.	412	6	52	9	30
Total capacity	1,739,972	1,017	68,356	24,323	25,225
Dynamos, D.C.	25	...	...	...	...
Total capacity	1,623	...	...	...	...
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	0.00	1.30	1.51	52.11
Dynamos, A.C.	809	6	54	15	260
Total capacity	6,055,618	359	78,597	91,038	3,155,665
Dynamos, D.C.	6	...	...	1	5
Total capacity	301	...	...	200	31
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	2.17	20.78	9.99	0.84
Dynamos, A.C.	510	12	28	12	8
Total capacity	267,819	5,897	56,435	26,420	2,289
Dynamos, D.C.	189	...	6	4	...
Total capacity	4,130	...	90	745	...

X - Capacity of one hydraulic station in Saskatchewan included in Manitoba.



TABLEAU 12 - OUTILLAGE DES USINES PRINCIPALES, 1938

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,252,428 30.13 342 2,251,013 9 475 ... ... 7 940	X 486,316 6.50 42 481,800 5 653 2 1,250 41 2,615	X 140,750 1.88 ... ... 2 1,150 24 119,800 203 19,800	129,755 1.74 11 69,140 16 4,265 15 52,995 74 3,355	590,129 7.89 80 584,997 5 469 3 2,840 31 1,823	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Roues hydrauliques et turbines ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
1,809,875 28.60 354 1,809,830 2 45	393,454 6.22 85 393,260 6 194	119,036 1.88 117 117,781 110 1,255	104,393 1.65 60 102,745 51 1,648	483,344 7.64 108 483,121 12 223	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
527,089 9.94 159 526,874 4 165 ... ... 1 50	328,002 6.19 22 326,800 ... ... ... ... 26 1,202	56,247 1.06 ... ... ... 11 44,755 150 11,492	78,315 1.48 9 68,180 11 1,555 2 5,300 72 3,280	579,754 10.94 71 575,227 3 414 3 2,840 28 1,273	<u>USINES COMMERCIALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
443,869 9.68 162 443,859 1 10	261,056 5.69 45 261,017 3 39	46,578 1.01 67 45,381 92 997	60,135 1.31 41 59,662 48 473	475,990 10.58 94 475,767 12 223	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,725,339 79.26 183 1,724,139 5 310 ... ... 6 890	158,314 7.27 20 155,000 5 653 2 1,250 15 1,411	84,503 3.88 ... ... 2 1,150 13 75,045 53 8,308	51,440 2.36 2 960 5 2,710 13 47,695 2 75	10,375 0.48 9 9,770 2 55 ... ... 3 550	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
1,366,006 78.43 192 1,365,971 1 35	132,398 7.60 40 132,243 3 155	72,658 4.17 50 72,400 18 258	44,258 2.54 19 43,083 3 1,175	7,354 0.42 14 7,354 ... ...	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,808,798 29.87 340 1,808,798 ... ...	389,600 6.43 42 389,600 ... ...	... ... ... ... ... ...	52,450 0.87 11 52,450 ... ...	479,181 7.91 81 479,111 2 70	<u>USINES HYDRAULIQUES</u> <u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,077 0.40 14 1,032 2 45	3,854 1.42 45 3,660 6 194	119,036 43.77 117 117,781 110 1,255	51,943 19.10 49 50,295 51 1,648	4,163 1.53 27 4,010 10 153	<u>USINES A COMBUSTIBLE</u> <u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.

X - Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.



TABLE 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1938

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	
<b>PRIMARY POWER</b> ..... H.P.	7,476,976	8,364	159,125	139,249	3,570,860	2,252,428	
Water wheels and turbines ..... No.	816	7	54	16	264	542	
Total H.P.	7,155,601	392	94,389	105,760	3,568,110	2,251,013	
Under 500 H.P. .... No.	134	7	20	2	27	53	
Total H.P.	26,666	392	4,829	710	4,191	11,548	
500 - 2,000 H.P. .... No.	211	...	17	3	63	117	
Total H.P.	230,689	...	19,170	2,550	65,669	129,930	
2,000 - 5,000 H.P. .... No.	135	...	11	6	33	66	
Total H.P.	397,821	...	36,890	17,500	94,550	188,935	
5,000 - 10,000 H.P. .... No.	109	...	6	1	33	32	
Total H.P.	720,225	...	33,500	5,000	233,400	207,500	
10,000 - 15,000 H.P. .... No.	84	...	...	...	28	44	
Total H.P.	981,300	...	...	...	301,900	528,600	
15,000 - 25,000 H.P. .... No.	50	...	...	4	17	11	
Total H.P.	944,000	...	...	80,000	352,500	182,500	
25,000 H.P. and up ..... No.	93	...	...	...	63	19	
Total H.P.	3,854,900	...	...	...	2,515,900	1,002,000	
Steam reciprocating engines ..... No.	43	...	2	4	...	9	
Total H.P.	10,287	...	275	3,000	...	475	
Under 500 H.P. .... No.	36	...	2	1	...	9	
Total H.P.	4,327	...	275	100	...	475	
500 H.P. and up ..... No.	7	...	...	3	...	...	
Total H.P.	5,960	...	...	2,900	...	...	
Steam turbines ..... No.	68	4	13	6	1	...	
Total H.P.	277,308	6,680	63,513	30,080	150	...	
Under 500 H.P. .... No.	6	...	1	...	1	...	
Total H.P.	1,514	...	402	...	150	...	
500 - 2,000 H.P. .... No.	19	3	2	1	...	...	
Total H.P.	21,199	4,180	2,256	700	...	...	
2,000 - 5,000 H.P. .... No.	23	1	4	3	...	...	
Total H.P.	69,866	2,500	12,080	11,000	...	...	
5,000 - 10,000 H.P. and up .... No.	20	...	6	2	...	...	
Total H.P.	184,729	...	48,775	18,380	...	...	
Gas and oil engines ..... No.	397	9	19	6	7	7	
Total H.P.	33,780	1,292	948	409	2,600	940	
<b>SECONDARY POWER</b>							
Dynamos, A.C. and D.C. .... No.	1,314	18	88	32	271	356	
Total Kv.A.	6,327,868	6,256	135,122	118,403	3,157,985	1,809,875	
Dynamos, A.C. .... No.	1,119	18	82	27	268	354	
Total Kv.A.	6,323,437	6,256	135,032	117,458	3,157,954	1,809,330	
Under 50 Kv.A. .... No.	108	5	10	...	7	7	
Total Kv.A.	3,113	136	294	...	243	198	
50 - 200 Kv.A. .... No.	164	7	14	5	12	33	
Total Kv.A.	17,878	678	1,560	543	1,323	3,899	
200 - 500 Kv.A. .... No.	127	2	15	1	22	40	
Total Kv.A.	39,656	612	4,663	375	7,728	12,321	
500 - 1,000 Kv.A. .... No.	132	1	8	4	37	64	
Total Kv.A.	95,033	625	5,945	2,750	27,000	46,320	
1,000 - 5,000 Kv.A. .... No.	271	3	27	11	53	116	
Total Kv.A.	624,760	4,205	70,395	28,475	112,295	242,960	
5,000 - 10,000 Kv.A. .... No.	113	...	8	2	25	47	
Total Kv.A.	791,797	...	52,175	15,310	166,020	353,592	
10,000 - 15,000 Kv.A. .... No.	72	...	...	...	32	24	
Total Kv.A.	779,825	...	...	...	333,660	257,040	
15,000 - 25,000 Kv.A. .... No.	55	...	...	4	20	8	
Total Kv.A.	1,043,500	...	...	70,000	409,250	154,000	
25,000 Kv.A. and up ..... No.	77	...	...	...	60	15	
Total Kv.A.	2,927,875	...	...	...	2,100,375	739,500	
Dynamos, D.C. .... No.	195	...	6	5	3	2	
Total Kw.	4,431	...	90	945	31	45	
Under 50 Kw. .... No.	188	...	6	2	3	2	
Total Kw.	2,231	...	90	20	31	45	
50 - 200 Kw. .... No.	3	...	...	1	...	...	
Total Kw.	200	...	...	75	...	...	
200 - 500 Kw. .... No.	2	...	...	1	...	...	
Total Kw.	600	...	...	200	...	...	
500 Kw. and up ..... No.	2	...	...	1	...	...	
Total Kw.	1,400	...	...	650	...	...	

TABLEAU 13 - OUTILLAGE CLASSIFIÉ DES USINES PRINCIPALES, 1938

Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal	
486,316	140,750	129,755	590,129	5,500,183	2,176,793	<u>FORCE MOTRICE PRIMAIRE</u> ..... H.P.
42	...	11	80	534	282	<u>Turbines et roues hydrauliques</u> ... Nomb.
481,800	...	69,140	584,997	5,142,432	2,013,169	Total H.P.
...	...	3	22	87	47	Moins de 500 H.P. .... Nomb.
...	...	1,140	3,856	14,592	12,074	Total H.P.
...	...	...	11	115	96	500 - 2,000 H.P. .... Nomb.
...	...	...	13,370	120,044	110,645	Total H.P.
4	...	2	13	91	44	2,000 - 5,000 H.P. .... Nomb.
12,800	...	8,000	39,146	272,271	125,550	Total H.P.
21	...	4	12	72	37	5,000 - 10,000 H.P. .... Nomb.
130,000	...	24,000	86,825	492,525	227,700	Total H.P.
7	...	...	5	56	28	10,000 - 15,000 H.P. .... Nomb.
92,000	...	...	58,800	628,600	352,700	Total H.P.
4	...	2	12	39	11	15,000 - 25,000 H.P. .... Nomb.
79,000	...	36,000	214,000	761,500	182,500	Total H.P.
6	...	...	5	74	19	25,000 et plus H.P. .... Nomb.
168,000	...	...	169,000	2,852,900	1,002,000	Total H.P.
5	2	16	5	24	19	<u>Machines à vapeur, à mouvement alternatif</u> Total H.P.
653	1,150	4,265	469	5,409	4,878	Moins et 500 H.P. .... Nomb.
5	1	13	5	21	15	Total H.P.
353	400	1,955	469	2,509	1,818	500 H.P. et plus .... Nomb.
...	1	3	...	3	4	Total H.P.
...	750	2,310	...	2,900	3,060	<u>Turbines à vapeur</u> .... Nomb.
2	24	15	3	34	34	Total H.P.
1,250	119,800	52,995	2,840	134,280	143,028	Moins et 500 H.P. .... Nomb.
1	1	2	...	1	5	Total H.P.
400	267	295	...	150	1,364	500 - 2,000 H.P. .... Nomb.
1	7	2	3	11	8	Total H.P.
850	8,373	2,000	2,840	12,923	8,276	2,000 - 5,000 H.P. .... Nomb.
...	8	7	...	12	11	Total H.P.
...	24,286	20,000	...	34,166	35,700	5,000 - 10,000 H.P. .... Nomb.
...	8	4	...	10	10	Total H.P.
...	86,874	30,700	...	87,041	97,688	<u>Moteurs à gaz et à pétrole</u> .... Nomb.
41	203	74	31	295	102	Total H.P.
2,613	19,800	3,355	1,823	18,062	15,718	
91	227	111	120	877	437	<u>FORCE MOTRICE SECONDAIRE</u>
393,454	119,036	104,393	483,344	4,586,273	1,741,595	<u>Dynamos, C.A. et C.D.</u> .... Nomb.
85	117	60	108	707	412	Total Kv.A.
393,260	117,781	102,745	483,121	4,583,465	1,739,972	<u>Dynamos, C.A.</u> .... Nomb.
25	26	12	16	74	34	Total Kv.A.
638	851	303	450	2,170	943	Moins et 50 Kv.A. .... Nomb.
14	38	19	22	106	58	Total Kv.A.
1,271	4,299	2,104	2,196	11,059	6,819	50 - 200 Kv.A. .... Nomb.
3	26	7	11	60	67	Total Kv.A.
970	7,680	2,125	3,112	18,111	21,545	200 - 500 Kv.A. .... Nomb.
1	6	3	8	73	59	Total Kv.A.
781	3,886	2,088	5,638	51,745	43,286	500 - 1,000 Kv.A. .... Nomb.
14	14	14	19	164	107	Total Kv.A.
46,350	32,305	42,375	45,400	378,405	246,355	1,000 - 5,000 Kv.A. .... Nomb.
11	4	2	14	69	44	Total Kv.A.
70,750	25,000	11,250	97,700	481,625	310,172	5,000 - 10,000 Kv.A. .... Nomb.
7	2	1	6	53	19	Total Kv.A.
76,000	25,000	12,500	75,625	581,225	198,600	10,000 - 15,000 Kv.A. .... Nomb.
10	1	2	10	46	9	Total Kv.A.
196,500	18,750	30,000	165,000	870,750	172,750	15,000 - 25,000 Kv.A. .... Nomb.
...	...	...	2	62	15	Total Kv.A.
...	...	...	88,000	2,188,375	739,500	25,000 Kv.A. et plus .... Nomb.
...	...	...	...	...	...	Total Kv.A.
3	110	51	12	170	25	<u>Dynamos, C.D.</u> .... Nomb.
194	1,255	1,648	223	2,808	1,623	Total Kw.
4	110	49	12	167	21	Moins de 50 Kw. .... Nomb.
69	1,255	498	223	1,883	348	Total Kw.
2	...	...	...	1	2	50 - 200 Kw. .... Nomb.
125	...	...	...	75	125	Total Kw.
...	...	1	...	1	1	200 - 500 Kw. .... Nomb.
...	...	400	...	200	400	Total Kw.
...	...	1	...	1	1	500 Kw. et plus .... Nomb.
...	...	750	...	650	750	Total Kw.



TABLE 14 - ELECTRIC ENERGY GENERATED, 1938.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>ALL STATIONS</b>					
Total kilowatt hours generated ..... (thousands)	26,154,160	7,038	404,828	465,358	13,707,343
Per cent of total for Canada .....	100.00	0.02	1.55	1.78	52.41
Kilowatt hours generated by non-generating stations ..... (thousands)	141	...	111	...	...
Kilowatt hours generated by generating stns. (thousands)	26,154,019	7,038	404,717	465,358	13,707,343
Kv.A. capacity of generating stations .....	6,463,611	6,304	135,272	118,403	3,181,110
Ratio of output to maximum capacity ..... p.c.	47.0	12.7	35.7	44.9	49.8
Average kilowatt hours per Kv.A. ....	4,046	1,116	2,992	3,930	4,309
<b>GENERATING STATIONS</b>					
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated ..... (thousands)	19,488,193	5,958	171,448	405,850	13,640,110
Kv.A. capacity .....	4,682,229	5,287	66,916	94,080	3,155,885
Ratio of output to maximum capacity ..... p.c.	48.4	12.9	29.2	49.2	49.9
Average kilowatt hours per Kv.A. ....	4,162	1,127	2,562	4,314	4,322
<b>Hydraulic Stations</b>					
Kilowatt hours generated ..... (thousands)	19,266,815	364	46,478	381,841	13,639,896
Kv.A. capacity .....	4,550,456	407	13,001	80,975	3,155,696
Ratio of output to maximum capacity ..... p.c.	49.3	10.2	40.8	53.8	49.9
Average kilowatt hours per Kv.A. ....	4,234	894	3,575	4,716	4,322
<b>Fuel Stations</b>					
Kilowatt hours generated ..... (thousands)	221,378	5,594	124,970	24,009	214
Kv.A. capacity .....	131,773	4,880	53,915	13,105	189
Ratio of output to maximum capacity ..... p.c.	19.2	13.1	26.5	20.9	12.9
Average kilowatt hours per Kv.A. ....	1,680	1,146	2,318	1,832	1,132
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated ..... (thousands)	6,665,826	1,080	233,269	59,508	67,233
Kv.A. capacity .....	1,781,382	1,017	68,356	24,323	25,225
Ratio of output to maximum capacity ..... p.c.	43.2	12.1	42.5	27.9	30.4
Average kilowatt hours per Kv.A. ....	3,742	1,062	3,413	2,447	2,665
<b>Hydraulic Stations</b>					
Kilowatt hours generated ..... (thousands)	6,423,970	...	231,795	23,214	63,144
Kv.A. capacity .....	1,641,206	...	65,746	10,263	23,125
Ratio of output to maximum capacity ..... p.c.	45.2	...	44.1	25.8	31.2
Average kilowatt hours per Kv.A. ....	3,914	...	3,526	2,262	2,731
<b>Fuel Stations</b>					
Kilowatt hours generated ..... (thousands)	241,856	1,080	1,474	36,294	4,089
Kv.A. capacity .....	140,176	1,017	2,610	14,060	2,100
Ratio of output to maximum capacity ..... p.c.	19.7	12.1	6.4	29.5	22.2
Average kilowatt hours per Kv.A. ....	1,725	1,062	565	2,581	1,947
<b>TOTAL HYDRAULIC STATIONS</b>					
Kilowatt hours generated ..... (thousands)	25,690,785	364	278,273	405,055	13,703,040
Kv.A. capacity .....	6,191,662	407	78,747	91,238	3,178,821
Ratio of output to maximum capacity ..... p.c.	48.2	10.2	43.5	50.7	49.8
Average kilowatt hours per Kv.A. ....	4,149	894	3,534	4,440	4,311
Kilowatt hours generated by water power ..... (thousands)	25,687,568	313	278,261	405,055	13,703,035
Kilowatt hours generated by auxiliary plants .. (thousands)	3,217	51	12	...	5
<b>TOTAL FUEL STATIONS</b>					
Kilowatt hours generated ..... (thousands)	463,234	6,674	126,444	60,303	4,303
Kv.A. capacity .....	271,949	5,897	56,525	27,165	2,289
Ratio of output to maximum capacity ..... p.c.	19.4	12.9	25.5	25.3	21.5
Average kilowatt hours per Kv.A. ....	1,703	1,132	2,237	2,220	1,880
<b>CONSUMPTION OF ELECTRIC ENERGY (THOUSANDS OF KILOWATT HOURS)</b>					
Total kilowatt hours generated .....	26,154,160	7,038	404,828	465,358	13,707,343
Kilowatt hours imported from the United States .....	624	...	...	62	235
Kilowatt hours imported from other provinces .....	...	...	...	5,935	69,798
Kilowatt hours exported to the United States .....	1,822,103	...	...	17,947	454
Kilowatt hours exported to other provinces .....	...	...	...	...	2,815,052
<b>KILOWATT HOURS FOR CONSUMPTION IN CANADA</b>					
Domestic service .....	24,332,681	7,038	404,828	453,408	10,961,870
Commercial light .....	2,172,500	2,579	35,307	25,367	287,107
Small power .....	1,032,340	1,597	19,311	16,844	250,288
Large power .....	517,578	756	12,563	9,652	107,712
Street lighting .....	17,416,305	666	285,279	363,167	49,163,822
Free service (other than street lighting) .....	196,886	323	4,998	3,321	37,536
Losses .....	12,097	3	55	164	6,108
Losses .....	2,984,975	1,114	47,315	34,893	1,109,297

Excludes exports to other provinces and/or to the United States.



TABLEAU 14 - ENERGIE ELECTRIQUE GENEREE, 1958

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
7,538,071 28.82	1,686,876 6.45	153,500 0.59	232,451 0.89	1,958,695 7.49	<u>TOUTES USINES</u> Total kw. heure générés ..... (milliers) Pourcentage du total pour le Canada
19 7,538,052 1,841,338 47.1 4,094	11 1,686,865 418,454 46.9 4,031	... 153,500 119,036 14.7 1,290	... 232,451 121,680 21.8 1,910	... 1,958,695 522,014 46.5 3,752	Kilowatt-heure générés par les usines non-génératrices ..... (milliers) Kilowatt-heure générés par les usines génératrices " Capacité des usines génératrices en Kv.A. Proportion de la production à la capacité maximum ..p.c. Moyenne de kilowatt-heure par Kv.A.
2,026,856 450,057 52.5 4,504	1,103,038 272,506 46.2 4,051	47,090 46,378 11.6 1,015	143,858 77,422 21.2 1,858	1,943,985 513,898 46.9 3,783	<u>USINES GENERATRICES</u> <u>USINES COMMERCIALES</u> TOTAL Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de la production à la capacité maximum ....p.c. Moyenne de kilowatt-heure par Kv.A.
2,026,704 449,902 52.3 4,505	1,102,117 271,350 46.4 4,062	... ... ... ...	131,832 68,887 21.8 1,914	1,937,583 510,238 47.1 3,797	<u>Usines Hydrauliques</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum .....p.c. Moyenne de kilowatt-heure par Kv.A.
152 155 11.2 981	921 956 11.0 962	47,090 46,378 11.6 1,015	12,026 8,535 16.1 1,409	6,402 3,660 20.0 1,749	<u>Usines à combustible</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum .....p.c. Moyenne de kilowatt-heure par Kv.A.
5,511,196 1,391,281 45.4 3,961	583,827 146,148 48.2 3,995	106,410 72,658 16.7 1,465	88,593 44,258 22.9 2,002	14,710 8,116 20.7 1,812	<u>USINES MUNICIPALES</u> TOTAL Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum .....p.c. Moyenne de kilowatt-heure par Kv.A.
5,509,854 1,390,359 45.5 3,963	580,275 145,250 48.9 4,051	... ... ... ...	1,531 850 20.6 1,801	14,157 7,613 21.2 1,860	<u>Usines Hydrauliques</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum .....p.c. Moyenne de kilowatt-heure par Kv.A.
1,342 922 16.6 1,456	3,552 2,898 14.0 1,226	106,410 72,658 16.7 1,465	87,062 43,408 22.9 2,006	553 503 12.5 1,099	<u>Usines à combustible</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum .....p.c. Moyenne de kilowatt-heure par Kv.A.
7,536,558 1,840,261 47.1 4,095 7,535,847 711	1,682,392 414,600 47.2 4,058 1,682,286 106	... ... ... ... ... ...	133,363 69,737 21.8 1,912 135,268 95	1,951,740 517,851 46.7 3,789 1,949,503 2,237	<u>TOUTES USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum .....p.c. Moyenne de kilowatt-heure par Kv.A. Kw.-heure générés par force motrice hydraulique (milliers) Kw.-heure générés par les usines auxiliaires ... (milliers)
1,494 1,077 15.8 1,387	4,473 3,854 13.3 1,161	153,500 119,036 14.7 1,290	99,088 51,943 21.8 1,908	6,955 4,163 19.1 1,671	<u>TOUTES USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. Proportion de production à la capacité maximum .....p.c. Moyenne de kilowatt-heure par Kv.A.
7,538,071 ... 2,809,117 1,802,352 69,798	1,686,876 233 ... 838 ...	153,500 ... ... ... ...	232,451 94 2,395 ... ...	1,958,695 ... ... 512 2,395	<u>CONSOMMATION D'ENERGIE ELECTRIQUE (EN MILLIERS DE KW.H.)</u> Total de kilowatt-heure générés Kilowatt-heure importés des Etats-Unis Kilowatt-heure importés d'autres provinces Kilowatt-heure exportés aux Etats-Unis Kilowatt-heure exportés à d'autres provinces
8,475,038 1,285,568 509,488 235,585 45,085,186 97,533 2,128 1,259,750	1,686,271 311,793 76,155 54,969 1,030,325 18,609 86 194,334	153,500 39,077 22,628 21,136 44,361 7,767 24 18,507	234,940 38,089 32,919 30,415 82,758 8,281 1,420 41,058	1,955,788 147,613 103,110 44,990 1,360,741 18,518 2,109 278,707	<u>KILOWATT-HEURE CONSOMMES AU CANADA</u> Service domestique Eclairage commercial Petite force motrice Grosse force motrice Eclairage des rues Service gratuit (autre que l'éclairage des rues) Pertes

\* Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.

TABLE 15 - FUEL, 1958

Provinces	Bituminous Coal Charbon bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA .....	311,359	1,141,403	5,875	27,037
Prince Edward Island .....	7,399	38,645	...	...
Nova Scotia .....	96,534	362,719	...	...
New Brunswick .....	48,122	196,332	1,733	5,950
Quebec .....	...	...	784	4,939
Ontario .....	50	140	3,358	16,148
Manitoba .....	4,315	16,592	...	...
Saskatchewan .....	113,215	469,560	...	...
Alberta .....	37,019	42,216	...	...
British Columbia and Yukon .....	4,705	15,199	...	...
	Fuel Oil and Diesel Oil Mazout et huile diesel		Wood Bois	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Gal. Gal.	\$	Cords Cordes	\$
CANADA .....	5,630,372	462,200	7,617	22,511
Prince Edward Island .....	127,387	13,690	250	1,000
Nova Scotia .....	97,842	10,380	20	100
New Brunswick .....	34,859	3,840	6	29
Quebec .....	301,718	26,846	...	...
Ontario .....	195,207	18,268	500	700
Manitoba .....	262,409	38,043	4,516	16,994
Saskatchewan .....	3,952,355	259,286	...	...
Alberta .....	248,734	39,814	2,325	3,688
British Columbia and Yukon .....	409,861	52,053	...	...

Note: Tons = 2,000 lbs.  
Gallons = Imperial.  
Cords = 128 cubic feet.

TABLEAU 15 - COMBUSTIBLE, 1958

Lignite Coal Charbon Lignite		Gasolene Gazoline		Kerosene Kérosène	
Canadian - Canadien		Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Quantity Quantité	Value Valeur				
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
152,914	236,490	13,220	3,260	4,181	668
...	...	135	41	90	18
...	...	...	...	...	...
...	...	...	...	...	...
...	...	286	76	500	90
...	...	55	15	...	...
484	1,790	423	129	...	...
30,337	37,491	5,371	1,250	3,583	554
122,093	197,209	5,550	1,397	...	...
...	...	1,400	352	8	6
Manufactured Gas Gaz fabriqué		Natural Gas Gaz naturel		Other Fuel Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu. ft. 1,000 pds.cu.	\$	1,000 cu. ft. 1,000 pds.cu.	\$	\$	\$
7,900,000	94,800	309,621	8,970	13,563	2,010,902
...	...	...	...	...	53,594
7,900,000	94,800	...	...	7,197	475,196
...	...	...	...	...	206,151
...	...	...	...	...	31,951
...	...	...	...	...	35,271
...	...	...	...	2,566	76,114
...	...	...	...	...	768,141
...	...	309,621	8,970	...	293,294
...	...	...	...	3,800	71,390

Note: Tonne = 2,000 livres.  
Gallon = Impérial.  
Corde = 128 pds. cu.



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# BUREAU FEDERAL DE LA STATISTIQUE

## BRANCHE DES TRANSPORTS ET DES UTILITES PUBLIQUES

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### INDUSTRIE DES USINES CENTRALES ELECTRIQUES, 1938

Les usines centrales électriques sont, pour les fins du recensement, des établissements appartenant à des compagnies, des municipalités ou des individus qui vendent ou distribuent de l'énergie, soit générée directement par l'établissement, soit achetée pour revente. D'après le mode de propriété, elles sont réparties en deux classes: (a) commerciales, si elles sont exploitées par des compagnies ou des particuliers; (b) municipales, si elles le sont par la municipalité, le gouvernement provincial ou l'Etat fédéral. D'après leur mode de fonctionnement, elles se divisent en (a) usines génératrices, lorsqu'elles génèrent l'énergie qu'elles vendent (même si elles achètent aussi du courant pour supplémer leur propre production) et en (b) non génératrices, si elles achètent toute l'énergie qu'elles vendent. Le dernier groupe comprend 24 usines disposant d'un outillage générateur auxiliaire classifié comme outillage générateur exclusivement. Dix-neuf de ces établissements achètent toute leur énergie et la production des cinq autres n'est que de 140,533 kWh, ce qui explique l'item plutôt surprenant du tableau 14 sur la production des usines non génératrices.

Les statistiques portent sur quelques établissements qui exploitent principalement des entreprises minières, des pulperies et papeteries, etc., et vendent leur surplus d'énergie électrique. Pour ces derniers établissements, on a tenu un état aussi distinct que possible de la statistique relative à l'industrie même des centrales électriques.

Les centrales peuvent préparer leurs rapports d'après leur année financière. Celle-ci ne correspond pas toujours à l'année civile. Ainsi, la production inscrite dans leur rapport annuel n'est pas nécessairement celle des douze mois de l'année civile, conformément à leurs rapports mensuels. Toutefois, les diverses données du rapport annuel correspondent à celles d'autres périodes.

La production des centrales électriques augmente presque continuellement chaque année jusqu'en mai 1930, alors que le nombre-indice de la production mensuelle (ajusté pour variations saisonnières) atteint une cime de 156. Par suite de la situation industrielle générale, la production a commencé à décliner et le nombre-indice a tombé à 122 en juillet 1932. Elle a commencé à augmenter de nouveau plus ou moins continuellement jusqu'à 240 en juin 1937, alors qu'une autre baisse s'est produite qui a duré environ un an et l'indice a tombé à 210 en juin 1938. De ce niveau la production a augmenté assez continuellement, dépassant la perte en un an environ et atteignant une nouvelle cime à 248 en novembre 1939.

La production totale de l'année s'élève à 26,154,160,000 kWh. Ce n'est cependant que 46.9 p.c. de la capacité fixe de l'outillage. Il est impossible naturellement de la porter à 100 p.c., car les charges varient; mais en 1928, elle s'établissait à 51.2 p.c. La production de 1938 représente une diminution de 3.4 points sur celle de 1937, ce qui est dû à la réduction de l'énergie absorbée pendant les heures creuses; l'énergie employée pour autres usages, y compris les pertes de lignes, est légèrement plus considérable qu'en 1937.



La production d'énergie secondaire se place à 5,751,350,000 kilowatt-heures, soit 22 p.c. de la production totale et une diminution de 1,561,664,000 kWh ou de 31 p.c. en regard de la production d'énergie secondaire en 1937. Ce déclin est surtout attribuable aux pulperies et papeteries, dont les achats d'énergie pour bouilloires électriques diminuent de 844,574,000 kWh et ceux d'énergie et d'éclairage diminuent de 1,065,150,000 kWh. Cette industrie est le plus grand consommateur d'énergie électrique, prenant environ un tiers de la production totale des centrales électriques. La consommation d'énergie électrique pour services ménagers augmente de 8.2 p.c.; pour éclairage commercial, de 7.7 p.c.; pour petites usines génératrices (50 kWh et moins), de 2.6 p.c.; et pour éclairage des rues, de 2.4 p.c.

L'électricité n'est exportée du Canada que sur permis du Service d'inspection de l'électricité et du gaz, du Ministère du Commerce. Ce service a juridiction sur les droits d'exportation imposés depuis le 1er avril 1925. Au cours de l'année fiscale terminée le 31 mars 1938, ces droits d'exportation s'élèvent à \$449,987, contre \$430,544 l'année précédente. Le taux est de trois centièmes d'un cent par kWh d'énergie exportée, sauf quelques exceptions. Le tableau qui suit donne la quantité d'énergie produite pour exportation au cours de l'année civile 1938, et les quantités exportées, la différence entre les deux item représentant les pertes de transmission. Les données ont été compilées des rapports annuels du directeur du Service d'inspection de l'électricité et du gaz.

KILOWATT-HEURES PRODUITS POUR EXPORTATIONS ET EXPORTES AUX ETATS-UNIS, ANNEE CIVILE

1938

Compagnie	kWh produits pour exportation	kWh exportés
Hydro Electric Power Commission of Ontario ...	391,818,700	387,249,300
Hydro Electric Power Commission of Ontario (surplus) .....	424,102,100	417,251,923
Cedar Rapids Mfg. and Power Co., Ltd.....	597,471,540	570,817,684
Canadian Niagara Power Co., Ltd. ....	421,646,600	371,864,078
Canadian Niagara Power Co., Ltd. (surplus) ...	35,980,900	35,980,900
Ontario and Minnesota Power Co., Ltd. ....	18,908,900	18,908,900
Maine and New Brunswick Electric Power Co. ...	18,144,981	17,515,863
British Columbia Electric Ry. Co., Ltd. ....	222,992	194,005
Northport Power and Light Co. ....	288,300	288,300
Southern Canada Power Co. ....	454,216	454,216
Canadian Cottons Ltd. ....	431,140	431,140
Northern British Columbia Power Co. ....	29,850	29,850
Fraser Companies Ltd. ....	4,412,000	4,412,000
Detroit and Windsor Subway Co. ....	279,600	279,600
Manitoba Power Commission .....	837,600	837,600
Total .....	1,915,029,419	1,826,515,359
kWh produits pour exportation et exportés par les usines centrales électriques seulement.	1,910,617,419	1,822,103,359



Sur une production globale de 26,154,160,000 kWh, 25,687,568,000 ou plus de 98 p.c. sont générés par la force hydraulique, et les autres 463,234,000, par des usines utilisant exclusivement des forces thermiques.

Les aménagements auxiliaires des stations hydrauliques et non génératrices produisent 3,358,000 kWh. La capacité des aménagements électriques du Canada en 1938, telle qu'établie par le Bureau Fédéral de l'Hydraulique et de l'Energie électrique, est de 8,190,772 h.p. (y compris les usines actives et inactives), ce qui représente environ 18.7 p.c. de toutes les forces hydrauliques captables dans les conditions actuelles. Le tableau suivant donne, pour le Canada, les forces hydrauliques ou captées ou potentielles.

FORCES HYDRAULIQUES, CAPTEES ET POTENTIELLES AU CANADA

Province	Forces disponibles par 24 heures à 80 p.c. d'efficiencie		Turbines installées 31 décembre	
	Au cours ordinaire minimum des eaux	Au cours ordinaire de six mois	1 9 3 8	1 9 3 9
(1)	(2) H.P.	(3) H.P.	(4) H.P.	(5) H.P.
Ile du Prince-Edouard	3,000	5,300	2,607	2,617
Nouvelle-Ecosse.....	20,800	128,300	130,617	131,717
Nouveau-Brunswick ....	68,600	169,100	133,347	133,347
Québec .....	8,459,000	13,064,000	4,031,063	4,084,763
Ontario .....	5,330,000	6,940,000	2,582,959	2,596,799
Manitoba .....	3,309,000	5,344,500	420,925	420,925
Saskatchewan .....	542,000	1,082,000	61,035	90,835
Alberta .....	390,000	1,049,500	71,997	71,997
Colombie Britannique .	1,931,000	5,103,500	738,013	738,013
Yukon et T.Nord Ouest.	294,000	731,000	18,199	18,199
CANADA .....	20,347,400	33,617,200	8,190,772	8,289,212

Les chiffres des colonnes 2 et 3 sont basés seulement sur les rapides, les chutes et les sites de développement hydrauliques dont la différence de niveau ou la tête d'eau possible est connue de manière définitive ou est établie d'une manière approximative. Il y a d'un océan à l'autre plusieurs sites potentiels d'une capacité plus ou moins grande qui n'ont pas encore été étudiés et qui augmenteraient ces totaux. Avec la construction de bassins d'emmagasiner et autres travaux régularisant l'écoulement des eaux, il est encore possible d'augmenter ces chiffres potentiels. Il est d'habitude, et c'est ce qui se fait dans la plupart des cas, d'installer un outillage dont la capacité dépasse considérablement le débit théorique continu d'une chute et sur cette base il est estimé que la capacité maximum des pouvoirs d'eau aménagés au Canada est de 43,700,000 h.p.

Le tableau suivant donne la production provinciale plus les importations moins les exportations, le montant net montrant la consommation dans chaque province y compris les pertes de lignes; les livraisons aux bouilloires électriques dans chaque province y paraissent séparément. Le tableau 14 analyse de nouveau la consommation d'énergie électrique.

CONSUMMATION D'ENERGIE ELECTRIQUE AU CANADA (Y COMPRIS LES PERTES DE LIGNES)  
(Milliers de kilowatt-heures)

	Pouvoir secondaire livré aux bouilloires électriques 1938	Autres usages et pertes de lignes 1939	T o t a l		Changements	
			1 9 3 8	1 9 3 7	1938 sur 1937	
Ile du Prince-Edouard	-	7,038	7,038	6,524	+	514 7.88
Nouvelle-Ecosse .....	-	404,828	404,828	446,976	-	42,148 9.43
Nouveau-Brunswick....	80,408	367,065	447,473	489,494	-	42,021 8.58
Québec .....	4,258,934	9,448,190	13,707,124	12,189,912	+1,517,212	12.45
Ontario .....	969,448	4,766,271	5,735,719	8,850,779	-3,115,060	35.20
Manitoba .....	438,824	1,247,447	1,686,271	1,697,247	- 10,976	.65
Saskatchewan .....	-	153,500	153,500	147,143	+	6,357 4.32
Alberta .....	-	232,545	232,545	225,551	+	6,994 3.10
Colombie Britannique. et Yukon .....	3,736	1,954,447	1,958,183	1,792,109	+ 166,074	9.27
CANADA .....	5,751,350	18,581,331	24,332,681	25,845,735	-1,513,054	5.85

TABLEAU I - RESUME COMPARATIF, 1929-1938

Au cours de l'année, le nombre d'usines hydrauliques diminue d'un et le nombre d'usines thermiques augmente de vingt-deux. Le capital est en augmentation constante, étant en 1938 de 46 p.c. plus élevé qu'en 1937 et de 3.2 ou \$48,086,361 plus élevé qu'en 1937. En 1938, les recettes augmentent de \$784,984 ou de .54 p.c. et les dépenses (gages, énergie achetée, combustible et taxes) augmentent de \$3,179,258. Les lignes sur poteaux augmentent de 3,942 milles et le nombre d'usagers, de 67,626. Depuis 1929, 266,913 usagers pour service ménager ont été ajoutés aux lignes et la production d'électricité a augmenté de 45.6 p.c. La capacité génératrice de cette industrie a augmenté de 56.3 p.c. depuis 1929; elle s'établit à 6,327,868 kilovoltampères à la fin de 1938.

TABLEAU 2 - SERVICE MENAGER, 1930-1938

Ce tableau montre le nombre d'usagers, la consommation, les recettes et les moyennes calculées d'après ces item pour le service ménager (y compris celui des fermes) de 1930 à 1938; les données connues ne permettent pas de pousser plus loin une vue rétrospective. Le nombre d'usagers de toutes les provinces augmente de 1930 à 1938, les pourcentages variant entre 5 p.c. dans la Saskatchewan à 37.1 p.c. dans la Nouvelle-Ecosse. La consommation totale augmente de même dans toutes les provinces, la Nouvelle-Ecosse se classant première avec une augmentation de 121.7 p.c. Toutes les provinces à l'exception de la Saskatchewan accusent une augmentation de recettes provenant du service ménager. La consommation annuelle moyenne par usager varie grandement; le Manitoba vient en tête avec une moyenne, en 1938, de 4,010 kWh par usager; l'Ile du Prince-Edouard a la plus petite consommation, soit 537 kWh. Les changements sont relativement faibles dans les factures annuelles moyennes de chaque province, même si la consommation accuse une augmentation assez marquée; les factures de la Nouvelle-Ecosse, du Nouveau-Brunswick, de l'Ontario, et de la Colombie Britannique sont restées remarquablement semblables durant ces neuf années, malgré les variations prononcées dans les factures de chacune de ces provinces. Les services ménagers sont plus complètement étudiés à la fin de ce rapport.



### TABLEAU 3 - USINES GENERATRICES

Les usines génératrices sont les établissements particuliers des usines centrales électriques. Tout immeuble abritant une machinerie productrice de force motrice est considéré comme une usine génératrice. Les organisations commerciales sont des compagnies et des particuliers vendant de l'énergie électrique, et les organisations municipales comprennent les municipalités rurales et urbaines, les commissions provinciales, etc., qui vendent de l'énergie électrique. Les organisations produisant de l'énergie exploitent d'un à plusieurs établissements chacune. La plus importante est la Commission Hydroélectrique de l'Ontario. Elle exploite 48 sources hydrauliques et un établissement auxiliaire à vapeur. Ces usines auxiliaires sont des usines thermiques appartenant aux systèmes hydrauliques ou des systèmes non générateurs et ne sont pas comprises ici avec les usines génératrices.

### TABLEAU 4 - CAPITAL

Le capital engagé dans l'industrie est classifié sous quatre rubriques: capital de génération, capital de transmission, capital de distribution et capital général. Le "capital de génération" comprend le capital immobilisé par les centrales, les sites, les barrages, les conduites d'amenée, les bassins d'emmagasinement et de régularisation, les réservoirs d'équilibre, etc., et aussi l'outillage des centrales, moins les transformateurs survolteurs et tout autre outillage de transmission. Le "capital de transmission et de distribution" comprend les item suivants: pylônes de transmission et de distribution, poteaux, fils, câbles, conduites, droits de passage, usines réceptrices, sites, tableaux de distribution et leurs transformateurs survolteurs ainsi que ceux des centrales, transformateurs, compteurs, etc. Le "capital général" comprend les placements dans les bureaux, les sites de bureaux, l'aménagement des bureaux, le matériel et les fournitures, les espèces en caisse, les comptes d'exploitation et les billets à recevoir. Le total représente le capital employé dans l'industrie. Le capital est le total, le 31 décembre ou au terme de l'année financière, de chaque station exploitée, sans comprendre les immobilisations de capital des organisations nouvelles encore inexploitées, mais comprenant les dépenses encourues par des organisations en exploitation en vue d'installations futures. Les moyennes de capital total par unité d'énergie servent mieux à indiquer les différentes classes de stations et de services que le prix de revient d'installations semblables. Il en est de même, quoique à un degré moindre, du capital de génération par unité d'énergie.

### TABLEAU 5 - REVENU

Les centrales électriques doivent répartir leurs clients, leur consommation et leur revenu sous les rubriques suivantes: (a) service des fermes, (b) service ménager, y compris l'éclairage et tous les autres usages domestiques, (c) éclairage commercial, (d) force motrice pour petit consommateur, 50 kW ou moins, (e) force motrice de plus de 50 kW, (f) ventes aux compagnies distributrices, (g) éclairage des rues et courant distribué sans frais aux édifices publics, etc. Le revenu est l'encaisse brute moins le prix de revient de l'énergie, ou revenu reçu du consommateur, sauf lorsqu'une station d'une province achète du courant d'une station d'une autre province; dans ce cas, le prix de revient de l'énergie ainsi achetée n'est pas déduit dans le calcul des données provinciales, mais il l'est dans celui des données fédérales. Cette distinction n'existe pas dans les rapports antérieurs à 1932; c'est pourquoi le revenu de l'Ontario, du Nouveau-Brunswick et de l'Alberta, provinces qui achètent du courant des autres provinces, se trouve plus bas que de raison. Le revenu moyen par kWh subit l'effet de maints facteurs; il n'indique pas nécessairement le coût relatif de services similaires. La moyenne pour service ménager et éclairage commercial porte sur des services plus ou moins identiques; mais même là, la source d'énergie, la charge

Voir rapport de 1933 (page 5), les effets de cette omission.



d'énergie, le marché de l'excédent de charge et du surplus de production, le prix de revient de la génération, de la transmission et de la distribution deviennent autant de facteurs qui influent sur les taux. A la fin du rapport on s'étend davantage sur les données du service ménager. Comme il faut s'y attendre, les usines de la province de Québec, avec leurs ventes énormes aux pulperies et papeteries, montrent un revenu proportionnellement plus faible du service ménager que toutes autres stations, bien qu'un dollar il soit plus élevé que partout ailleurs, sauf en Ontario. Dans le calcul du revenu moyen par kWh pour toutes fins, il importe d'inclure les pertes de lignes; mais dans le service ménager, le service des fermes et l'éclairage commercial ces pertes ne sont pas comprises; dans ces divers services la consommation est comptée d'après les compteurs des consommateurs. Le revenu moyen par kWh consommé dans chaque province correspond au revenu reçu du consommateur ultime de la province plus le revenu reçu de l'énergie exportée de la province, divisé par le nombre de kWh ainsi vendus, pertes de toutes lignes comprises. Le revenu moyen par kWh de service ménager est affecté par la consommation par usager et les quantités relatives servant à l'éclairage, à la cuisson et au chauffage de l'eau là où les taux varient avec les services. Dans la plupart des municipalités où la consommation augmente, le consommateur paie moins, en moyenne, par kWh. De même, lorsque le tarif uniforme s'applique au chauffe-eau, la moyenne du prix de revient par kWh, pour toutes fins ménagères, s'en trouve réduite, et à mesure qu'augmente le nombre des chauffe-eau à tarif uniforme, la moyenne diminue jusqu'à parfois disparaître par suite de l'augmentation des taux ailleurs, pour la municipalité ou la province. Pour toutes fins ménagères, le prix moyen du kWh s'établit à 1,90 cents, contre une moyenne de 4,21 cents ou 4,07 cents y compris les services sur la ferme aux Etats-Unis. Le revenu moyen par h.p. et par kVA est affecté par les classes de service et leur importance relative dans chaque province. Les usines du Québec vendent de grandes quantités d'énergie aux distributeurs ontariens. Le revenu de gros de cette énergie est attribué aux usines de l'Ontario. Dans la computation des moyennes pour les usines de l'Ontario, les capacités d'outillage données dans les tableaux 12 et 13 sont augmentées; un h.p. pour chaque 4,576 kWh importés des usines du Québec et un kVA pour chaque 6,136 kWh importés. Ce n'est qu'une estimation de l'outillage qui est basée sur les contrats de la Commission de l'énergie hydroélectrique de l'Ontario avec des compagnies du Québec qui comptent 88 kWh par semaine pour chaque h.p. acheté. Il est assez probable que cette production soit un peu trop élevée pour toute l'énergie importée du Québec et c'est pourquoi les diviseurs sont trop petits et les revenus moyens trop élevés. Il ne semble pas que les erreurs soient considérables et les moyennes ajustées sont plus comparables aux moyennes des autres provinces que les moyennes non ajustées qui paraissent dans les rapports antérieurs à 1935. Les importations du Nouveau-Brunswick et de l'Alberta sont relativement si petites que leur effet sur les moyennes sont négligeables.

#### TABLEAU 6 - DEPENSES

Les données sur ce point couvrent quatre rubriques: (1) salaires et gages, (2) combustible, (3) taxes et (4) le prix de revient du courant. Ce dernier item constitue une dépense entre les établissements et pourrait être omis de l'état de dépenses de toute l'industrie. Il indique cependant les achats d'énergie par les différents groupes d'usines. Les "salaires et gages" passent de \$25,623,767 en 1937 à \$37,145,688 en 1938, soit une augmentation de 6,0 p.c. Toutes les provinces montrent des bordereaux de paye plus considérables. Les dépenses du "combustible" diminuent de \$2,582,739 à \$2,010,902. Les "taxes" augmentent de \$552,687 au cours de l'année, passant de \$9,843,801 en 1937 à \$10,396,489 en 1938. Les usines commerciales ont payé \$9,549,840 ou 92 p.c. du total. Plus de la moitié des taxes versées par les usines municipales l'ont été par des usines ontariennes. Le prix de revient de l'énergie comprend et les montants versés par les municipalités qui s'approvisionnent auprès des commissions provinciales et les frais d'échange d'énergie entre les stations génératrices et les stations non génératrices.



TABEAU 7 - EMPLOYÉS

Les usines de toutes les provinces excepté celles de la Saskatchewan et de la Colombie Britannique accusent des augmentations du nombre de leurs employés. L'augmentation nette s'établit à 911. Le tableau suivant donne une idée des heures de travail des employés à gages de l'industrie. Plus de la moitié des employés travaillent 48 heures par semaine et les quatre cinquièmes, 48 heures ou moins.

EMPLOYÉS A GAGES, MOIS D'EMPLOIEMENT MAXIMUM  
DONT LES HEURES RÉGULIÈRES DE TRAVAIL SONT  
LES SUIVANTES

Heures par semaine	40 hres ou moins	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 et plus	Total
Ile du P.-E.	-	-	-	-	24	-	-	-	-	-	4	28
N.-Ecosse	172	5	43	10	532	6	14	31	1	60	391	1,265
N.-Brunswick	54	4	43	1	85	1	2	174	-	22	13	399
Québec	308	5	128	7	2,356	19	13	172	14	288	233	3,543
Ontario	670	74	723	121	3,179	248	28	282	22	163	159	5,669
Manitoba	58	-	85	-	668	5	-	6	-	13	2	837
Saskatchewan	18	-	65	15	192	4	5	56	16	17	7	395
Alberta	129	2	33	25	164	1	5	-	-	5	1	365
C.B. et Yukon	390	4	181	45	771	1	-	-	4	7	9	1,412
CANADA	1,799	94	1,301	224	7,971	285	67	721	57	575	819	13,913
P.C. du Total	12.9	.7	9.4	1.6	57.3	2.0	.5	5.2	.4	4.1	5.9	100.0

TABEAU 8 - USAGERS

Suivant les explications du tableau 4, les stations doivent diviser leurs clients en sept classes; mais, comme plusieurs ne peuvent établir de distinction entre les services ménagers et les services de ferme, ces deux services sont combinés. Le nombre de services de ferme s'établit à 77,020 en 1938, ou 4.9 p.c. des services ménagers et de ferme réunis. Ils consomment 82,253,389 kWh. D'après les données du recensement de la population nous savons que le nombre réel de fermes desservies est beaucoup plus élevé, la différence étant englobée probablement dans les services ménagers. Les fermes voisines des grands centres urbains et desservies aux taux des usagers urbains sont encore, dans nombre de cas, classifiées avec les usagers ménagers. En Ontario où la majorité des usagers ruraux sont desservis par la commission provinciale et classifiés comme services de ferme, la différence par rapport au chiffre du recensement de 1931 est minime. En 1938, les services de ferme en Ontario s'établissent à 46,096 ou 60 p.c. du total. Les centrales de Québec déclarent 22,266 services de ferme. Il y en a 8,658 dans les autres provinces, mais pour peu que les données de 1931 puissent servir de critère, ce nombre est considérablement inférieur au nombre réel de fermes desservies. Le recensement de 1941 offrira un moyen sûr de vérification. Chaque municipalité qui éclaire ses rues à l'électricité est considérée comme un usager. Dans certains cas les usines commerciales fournissent le courant et dans d'autres la municipalité en assure elle-même la distribution. Les provinces à fort pourcentage de population urbaine sont aussi celles qui comptent le plus d'usagers ménagers. La moyenne d'usagers ménagers par 100 habitants augmente de 13.5 en 1937 à 13.9 en 1938. Elle est basée sur les populations estimatives compilées par le Bureau et chaque domicile ou famille desservi est compté comme un usager. Ces moyennes ont été calculées pour la première fois en 1920 et depuis lors la moyenne du Canada a augmenté de 8.86 à 13.9 ou de 57.1 p.c. En Alberta, la densité est assez élevée en 1920 et l'augmentation entre 1920 et 1938 n'est que légèrement supérieure à l'augmentation de la population. Dans les autres provinces, l'augmentation est, par ailleurs, beaucoup plus considérable que l'augmentation de la population. Au Nouveau-Brunswick, la moyenne d'usagers ménagers par 100 habitants augmente de 152 p.c.; en Nouvelle-Ecosse, de 108 p.c.; dans l'île du Prince-Édouard, de 77 p.c.; dans le Québec, de 36 p.c.; dans l'Ontario, de 77 p.c.; au Manitoba, de 23 p.c.; en Saskatchewan, de 51 p.c.; et en Colombie Britannique, de



44 p.c. Dans la comparaison de ces taux d'augmentation, il importe de tenir compte de la densité de la population au début de la période. Au Manitoba, par exemple, la densité est de 8.76 en 1920, soit plus du double de celle du Nouveau-Brunswick et plus du triple de celle de l'île du Prince-Edouard.

#### TABEAU 9 - MILLAGE DE LIGNES SUR POTEAUX

Les lignes de transmission et de distribution sont groupées dans le présent tableau au lieu d'être séparées comme dans les rapports antérieurs à 1934. Une division indique le nombre de milles de lignes sur pylône et poteaux d'acier, de bois ou de béton, de câbles sous-marins ou souterrains; et une autre division fait voir les réseaux urbains et les lignes des tranchées, le long des routes, pour le service rural. Les pylônes et poteaux d'acier servent presque exclusivement aux lignes de transmission de haut voltage; et seuls le Québec, l'Ontario et le Manitoba comptent un grand nombre de milles de lignes.

#### TABLEAUX 10, 11, 12 et 13 - OUTILLAGE

L'outillage des usines génératrices est divisé en deux groupes: l'outillage principal et l'outillage auxiliaire ou de réserve. Par outillage auxiliaire, il faut comprendre tous les engins ou turbines à vapeur, les engins à combustion interne, les dynamos qu'ils actionnent dans les usines hydroélectriques ainsi que tout l'outillage des stations non génératrices. Tout autre outillage est classé comme outillage principal et comprend les roues et turbines hydrauliques, les générateurs qu'elles actionnent dans les usines hydroélectriques et tout outillage des usines exclusivement thermiques. Il peut arriver que des usines thermiques aient à leur disposition quelque outillage auxiliaire pour parer aux besoins urgents ou aux charges occasionnelles, et que d'autres usines hydrauliques aient aussi en réserve un certain outillage hydraulique pour les mêmes fins sans qu'il soit classé comme outillage principal. Bien que quelques usines hydroélectriques se servent de leur outillage thermique quand l'eau est basse ou quand la demande est forte, elles n'y ont recours cependant que dans les cas d'urgence. Au cours de l'année l'outillage auxiliaire n'a généré que 3,217,000 kWh. Au cours de l'année la Nova Scotia Power Commission a installé une turbine hydraulique de 10,200 h.p. à Cowie-Falls, la Gatineau Power a ajouté une turbine de 34,000 h.p. à son usine de Chelsea, l'Ontario Hydro Electric Power Commission a installé deux turbines de 5,200 h.p. chacune dans son usine de Ragged-Rapids et la Great Lakes Power Company a installé une turbine de 10,400 h.p. dans son usine de la rivière Montréal. La cité de Winnipeg a ajouté une turbine de 12,500 h.p. à son usine de Slave-Falls et la British Columbia Electric Company a ajouté une turbine de 47,000 h.p. à son usine de Ruskin. Ces installations de même que d'autres additions moins importantes portent la capacité totale à 7,672,604 h.p., y compris l'outillage principal et l'outillage auxiliaire.

#### TABEAU 14 - COURANT ELECTRIQUE GENERE

Par courant électrique généré il faut entendre la production des usines génératrices moins l'énergie consommée par les usines elles-mêmes; l'expression comprend donc aussi les pertes de transformateurs et de lignes au cours de la livraison de l'énergie aux consommateurs. Toutes les grandes usines mesurent leur production; pour les usines qui n'ont pas de wattheuremètres, le nombre de kWh reste estimatif. Le rendement potentiel en kVA mentionné est le rendement potentiel, à la fin de l'année, des dynamos tant de l'outillage principal que de l'outillage auxiliaire des usines génératrices; cependant, les taux de production maximum sont établis sur le nombre de kWh générés et sur le rendement potentiel déclaré des dynamos multiplié par le nombre d'heures pendant lesquelles les machines sont restées actives. Ainsi, le rendement potentiel maximum pour une dynamo de 1,000 kVA, pour un an, de-



vrait être de 8,760,000 kWh; mais installée le 30 novembre, la capacité maximum serait limitée à 744,000 kWh à l'unité de facteur de puissance. Les taux deviennent donc directement sujets à comparaison pour chaque année, peu importe la date à laquelle de grandes additions sont effectuées à la capacité génératrice de l'industrie; la hausse et la baisse des proportions indiquent alors la position relative de l'offre et de la demande sur une base de kWh. En 1938 la proportion est de 47.0 p.c., soit une diminution de 3.3 p.c. sur 1937. Bien qu'elle ne doive pas atteindre 100 p.c., il est évident que les aménagements actuels peuvent répondre à une demande beaucoup plus forte que la charge de 1938. Quelques usines ont trouvé à vendre leur surplus de charge et leur énergie des heures creuses aux bouilloires électriques, débouché commercial qui a progressé très rapidement. En 1924, cette énergie secondaire s'élève à 260,489,000 kWh seulement, tandis qu'elle s'élève à 7,313,014,000 kWh en 1937 et décline à 5,751,350,000 kWh en 1938.

ELECTRICITE VENDUE POUR LE CHAUFFAGE DES BOUILLOIRES ELECTRIQUES

(En milliers de kilowatt-heures)

Mois	1 9 3 5	1 9 3 6	1 9 3 7	1 9 3 8
Janvier .....	554,218	560,230	708,188	567,585
Février .....	500,103	529,423	664,150	498,506
Mars .....	518,053	622,208	706,651	541,016
Avril .....	515,778	685,527	648,127	447,901
Mai .....	523,922	581,429	620,589	420,817
Juin .....	462,598	518,029	600,398	344,815
Juillet .....	427,328	504,160	513,634	362,027
Août .....	414,138	490,277	491,409	407,929
Septembre .....	459,724	498,474	487,348	479,317
Octobre .....	600,143	618,109	566,436	536,493
Novembre .....	636,054	654,015	636,633	593,051
Décembre .....	632,590	680,960	669,451	551,893
TOTAL .....	6,312,387	6,942,841	7,313,014	5,751,350

+ Y compris 67,738,000 kilowatt-heures non distribués.

TABEAU 15 - COMBUSTIBLE

Presque tout le combustible employé se compose de charbon, d'huile et de gaz régionaux, etc., de toutes les provinces, la Saskatchewan et la Nouvelle-Ecosse sont les seules à faire usage d'une quantité considérable de combustible dans la génération de l'énergie électrique. La Nouvelle-Ecosse compte plusieurs usines hydroélectriques, mais la Saskatchewan n'en compte qu'une seule, près de la frontière manitobaine, et les statistiques qui s'y rapportent font partie de celles des usines du Manitoba. Les "autres combustibles" comprennent presque exclusivement de la vapeur qu'achète une usine de la Nouvelle-Ecosse.

# SERVICE MENAGER

Le tableau de la page suivante groupe et analyse toutes les données du service ménager dans chaque province. La concentration de la population dans les côtes, les villes et les villages munis de services électriques influe sur le nombre d'usagers, leur proportion par 100 habitants et les taux de consommation, tant de la consommation provinciale totale que de la consommation ménagère au Canada. Le prix peut avoir des effets sur la consommation, sur la moyenne des états de compte, sur la moyenne du prix de revient le kWh ainsi que sur le nombre de consommateurs. Le mode de paiement pour le service peut influencer considérablement sur la moyenne de la consommation et du prix de revient le kWh. Les taux uniformes et les taux décroissants, surtout les premiers, stimulent la consommation, mais ils tendent à augmenter de beaucoup la consommation en kWh et à réduire le coût moyen par unité; toutefois, ils peuvent augmenter la charge requise d'une fraction seulement du taux d'augmentation de la consommation. Les us et coutumes peuvent aussi avoir leur effet sur la consommation. C'est en Colombie Britannique que la densité des consommateurs est la plus forte; viennent ensuite l'Ontario et le Québec. C'est au Manitoba que le prix de revient le kWh est le plus bas et la consommation par usager et par tête la plus élevée. Le tarif fixe sur les chauffe-eau, à Winnipeg, influe considérablement sur ces moyennes. Le même tarif, en vigueur dans l'Ontario, influe aussi sur les moyennes de cette province, mais non autant parce que la consommation de ce chef y représente un plus faible pourcentage de la consommation totale que dans le Manitoba.

## SERVICE MENAGER, 1938

Province	Nombre d'usagers		Compte moyen (de l'année)	Moyenne par kilowatt-heure	Consommation moyenne annuelle		Consommation du service ménager	
	Total	Par 1,000 âmes			Par usager	Par tête	P.C. de la consommation provinciale totale	P.C. de la consommation du S.M. du Canada
			\$	\$	kWh	kWh		
Ile du Prince-Edouard	4,799	5.11	31.46	5.85	537	27	36.6	.1
Nouvelle-Ecosse.....	58,556	10.69	27.24	4.52	603	64	8.7	1.6
Nouveau-Brunswick....	43,556	9.79	28.31	4.86	582	57	5.7	1.2
Québec .....	421,178	13.28	30.58	3.02	682	91	2.1	13.2
Ontario .....	691,498	18.53	26.69	1.44	1,859	345	22.4	59.2
Manitoba.....	77,762	10.80	41.45	1.03	4,010	433	18.5	14.3
Saskatchewan..	48,060	5.11	39.61	4.87	813	42	25.5	1.8
Alberta.....	63,030	8.05	31.46	5.21	604	49	16.4	1.8
Colombie Britannique et Yukon .....	150,955	19.73	27.07	2.77	978	193	7.5	6.8
CANADA .....	1,559,394	13.92	26.49	1.90	1,393	194	8.9	100.0





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**BUREAU FEDERAL DE LA STATISTIQUE**

**SECTION DES TRANSPORTS ET UTILITES PUBLIQUES**

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**RECENSEMENT INDUSTRIEL**

**1938**

**USINES ELECTRIQUES CENTRALES  
DU CANADA**

(Préparé en collaboration avec le Bureau Fédéral  
de l'hydraulique et de l'énergie Electrique,  
Ministère des Mines et Ressources)



OTTAWA  
1940

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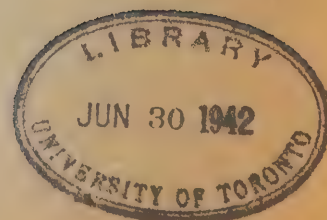
**CENTRAL ELECTRIC STATIONS  
IN CANADA**

(Prepared in collaboration with the Dominion  
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Dominion Statistician, R.H. COATS, LL. D., F.R.S.C., F.S.S. (Hon.)

Chief, Transportation and Public Utilities Branch, G.S. Wrong, B.Sc.

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CENTRAL ELECTRIC STATION INDUSTRY, 1939.

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 25 stations which were holding generating equipment classed as auxiliary plant equipment. Seventeen of them purchased all their electric energy and the remaining eight generated only 5,228,000 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

The output of central electric stations rose fairly continuously each year up to May 1930 when the index number of monthly output adjusted for seasonal variations reached a peak of 156. Due to general industrial conditions the output began to decline and the index number dropped to 122 for July 1932. It began to rise again more or less continuously to 240 for June 1937 when another slump set in which lasted about a year and the index dropped to 210 for June 1938. From this point on it rose fairly steadily, overcoming the loss in about a year and reaching a new peak in July 1940 of 279.

The total output for 1939 was 28,338,030,000 kilowatt hours which, however, was only 49.8 per cent of the rated capacity of the equipment. Of course a ratio of 100 per cent is not possible with varying loads and with some stations having more capacity than can be used continuously with the water available. The output was 2,183,870,000 kilowatt hours or 8.4 per cent greater than for 1938.

The production of secondary power amounted to 6,590,378,000 kilowatt hours which was 23 per cent of the total output and 839,028,000 kilowatt hours or 15 per cent more than the secondary power output for 1938. This increase was largely due to the pulp and paper mills which showed an increase in purchased power for electric boilers of 602,130,000 kilowatt hours, and 392,592,000 kilowatt hours for power and lighting. This industry is the largest consumer of electric power, taking about a third of the total output of central electric stations. The consumption of electric energy for domestic service continued to grow, increasing by 6.4 per cent over 1938; commercial light was heavier by 7.4 per cent, small power (50 kw. and less) by 3.5 per cent and street lighting by 3.7 per cent.

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1940, the export duty amounted to \$443,783 as against \$449,987 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export for the calendar year 1939, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES

(Calendar Year 1939)

Company	Produced for Export	Exported
	Kw.h.	Kw.h.
Hydro Electric Power Commission of Ontario .....	394,371,700	389,926,100
" " " " " " (surplus)-Niagara..	451,028,000	444,101,487
" " " " " " " -Cornwall	1,085,680	1,006,122
Cedar Rapids Manufacturing and Power Co., Ltd. ....	623,741,485	596,526,022
Canadian Niagara Power Co., Ltd. ....	441,630,100	383,205,902
" " " " " " (surplus) .....	42,827,700	42,827,700
Ontario and Minnesota Power Co., Ltd. ....	28,774,200	28,774,200
Maine and New Brunswick Electric Power Co. ....	20,332,215	19,516,633
British Columbia Electric Railway Co., Ltd. ....	228,662	198,936
Northport Power and Light Co. ....	284,398	284,398
Southern Canada Power Company .....	451,190	451,190
Canadian Cottens, Ltd. ....	760,369	760,369
Northern British Columbia Power Co. ....	28,750	28,750
Fraser Companies, Ltd. ....	3,866,000	3,866,000
Detroit and Windsor Subway Company .....	274,900	274,900
Manitoba Power Commission .....	874,284	874,284
TOTAL .....	2,010,559,633	1,912,622,993
Kilowatt hours produced for export and exported by central electric stations only .....	2,006,693,633	1,908,756,993

✧ One month only



Of the total output of 28,338,030,000 kilowatt hours, 27,829,017,000 kilowatt hours, or over 98 per cent, were produced by water power, whereas only 496,111,000 kilowatt hours were produced by plants using only thermal engines and 12,902,000 kilowatt hours were produced by auxiliary equipment in hydraulic and non-generating stations.

The total hydraulic installation in all industries in Canada in 1939 including active and inactive plants, as compiled by the Dominion Water and Power Bureau was 8,289,212 horse-power which was about 19 per cent of the total that the recorded falls would warrant installing under present day practices. The available and developed water power in Canada is shown in the following table:

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province (1)	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow (2)	At Ordinary Six Months Flow (3)	1 9 3 9 (4)	1 9 4 0 (5)
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	131,717	139,217
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	4,084,763	4,320,943
Ontario .....	5,330,000	6,940,000	2,596,799	2,597,595
Manitoba .....	3,309,000	5,344,500	420,925	420,925
Saskatchewan .....	542,000	1,082,000	90,835	90,835
Alberta .....	390,000	1,049,500	71,997	71,997
British Columbia ...	1,931,000	5,103,500	738,013	788,763
Yukon & Northwest Territories .....	294,000	731,000	18,199	18,199
CANADA	20,347,400	33,617,200	8,289,212	8,584,438

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power.

The following table shows the provincial production plus imports less exports, the amount being the consumption within each province including all line losses; the deliveries electric boilers in each province are shown here segregated from other uses. The consumption electric energy is further analyzed in table 14.



CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)  
(Thousands of Kilowatt Hours)

Province	Secondary Power Delivered to Electric Boilers 1 9 3 9	Other Uses and Line Losses 1 9 3 9	T o t a l		C h a n g e s		
			1 9 3 9	1 9 3 8	1939 vs. 1938		
					Kw.h.	p.c.	
P.E. Island .....	...	7,747	7,747	7,038	+	709	10.07
Nova Scotia .....	...	436,269	436,269	404,828	+	31,441	7.77
New Brunswick ...	49,167	396,172	445,339	453,408	-	8,069	1.78
Quebec .....	4,774,593	7,115,854	11,890,447	10,961,870	+	928,577	8.47
Ontario .....	1,295,671	8,162,459	9,458,130	8,475,038	+	983,092	11.60
Manitoba .....	467,834	1,306,816	1,774,650	1,686,271	+	88,379	5.24
Saskatchewan ....	...	167,275	167,275	153,500	+	13,775	8.97
Alberta .....	...	254,247	254,247	234,940	+	19,307	8.22
British Columbia and Yukon .....	3,113	1,992,723	1,995,836	1,955,788	+	40,048	2.05
CANADA .....	6,590,378	19,839,562	26,429,940	24,332,681	+	2,097,259	8.62

/ Revised

TABLE 1 - COMPARATIVE SUMMARY, 1930-1939

During the year the number of hydro-electric plants remained unchanged and the number of fuel plants, or plants using thermal engines exclusively, was increased by 22. The capital has been increasing steadily, 1939 being 38 per cent above 1930 and 1.2 per cent, or \$19,288,619 above 1938. During 1939 revenue increased by \$7,549,342 or 5.2 per cent, and expenses (wages, power purchased, fuel, and taxes) by \$4,618,032. Pole line mileage was extended 5,185 miles and the number of customers was larger by 68,042. Since 1930, 306,348 domestic customers have been added to the lines and the production of electricity has increased 57 per cent. The generator capacity of the industry has increased 44 per cent since 1930 and at the close of 1939 amounted to 6,435,416 kilovolt amperes.

TABLE 2 - DOMESTIC SERVICE, 1930-1939

This table shows the number of customers, the consumption, revenue, and averages computed from these for domestic service including farm service for 1939 back to 1930 which is as far back as all the data are available. In all provinces the number of customers increased between 1930 and 1939, the percentages ranging from 9 per cent in Saskatchewan to 45 per cent in Nova Scotia. The total consumption also increased in all provinces, Prince Edward Island leading here also with an increase of 148.6 per cent. All of the provinces showed increased revenues from domestic service. The average annual consumption per customer varied widely, Manitoba leading with an average in 1939 of 3,956 kilowatt hours per customer and Prince Edward Island showing the smallest consumption at 574 kilowatt hours. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario, and British Columbia have been remarkably close together throughout these ten years despite the wide variations in unit costs. Domestic services are further discussed under Table 5 and at the end of this report.

TABLE 3 - POWER PLANTS

The generating stations are the individual power plants of the central electric stations. Each building housing power machinery is counted as a generating station. The commercial organizations are companies and individuals selling electric energy and the municipalities include urban and rural municipalities, provincial commissions, etc., selling electric energy. Those generating power operate from one to several power plants each, the largest system being the Ontario Hydro Electric Power Commission which operates 49 hydraulic plants and owns one steam auxiliary plant. The auxiliary plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations.

TABLE 4 - CAPITAL

The capital employed in the industry is reported under three heads, viz., generation, transmission and distribution, and general. "Generation" includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. "Transmission and distribution" includes all transmission and distribution towers, poles, wires, cables and conduits and right-of-way, receiving stations and substations and sites, switchboards and step-up transformers in these and in power houses, step-down transformers, meters, etc. "General" includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal years, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. The averages of total capital per unit of power are more indicative of different classes of stations and service given than costs of similar installations. The same also applies to generation capital per unit of power, only to a lesser degree.

TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service, which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick, and Alberta, which purchased power from other provinces, were lower than they should have been. /

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than

/ See 1933 report, page 5, for effect of this omission.



any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services, for commercial light, etc., line losses were not included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average cost of 1.90 cents per kilowatt hour for all domestic service compares with an average of 4.03 cents or 3.86 cents including farm services in the United States. The average revenues per horse-power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in tables 12 and 13 were increased one horse-power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro Electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per week for each horse-power purchased. It is quite probable this output is a little too high for all the power imported from Quebec and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

#### TABLE 6 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations. Taxes include the Dominion sales tax on domestic service of 8 per cent effective from September 13, 1939. Because the fiscal year of some of the large systems, particularly the Ontario provincial system, ended before Dec. 31 the full effect of the four months tax is not shown in these data. This tax affected both commercial and municipal stations but other taxes were paid largely by the commercial stations except in Ontario and Alberta. In Ontario the largest item for municipal stations was for the provincial system which pays taxes on certain of its properties and in Alberta the municipalities tax their own utilities.

#### TABLE 7 - EMPLOYEES

Stations in all provinces showed increases in the number of employees, the increase in the total being 919 employees. The table below analyzes the hours of labour of wage-earners in the industry. Over one-half of the employees worked a 48-hour week and four-fifths worked 48 hours or less per week.



NUMBER OF WAGE-EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS  
PER WEEK WERE:

Hours per Week	40 or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 & over	Total
P.E.I.	1	-	-	-	37	-	-	4	-	-	4	46
N.S.	241	9	29	26	630	12	21	68	12	81	202	1,328
N.B.	31	2	30	1	98	1	-	160	-	21	38	391
Quebec	330	15	283	23	2,183	42	8	527	9	284	161	3,666
Ontario	672	75	725	127	3,219	253	52	234	29	129	205	5,720
Manitoba	32	-	63	20	718	121	3	6	-	2	2	967
Sask.	63	3	48	18	185	-	6	33	-	20	10	386
Alberta	94	1	83	-	192	1	-	1	-	7	2	381
B.C. and Yukon	340	1	195	92	1,081	12	15	-	1	3	19	1,759
CANADA	1,804	106	1,456	507	8,343	442	106	839	51	547	643	14,644
Per cent of Total	12.5	.7	9.9	2.1	57.0	3.0	.7	5.7	.3	3.7	4.4	100.0

TABLE 8 - CUSTOMERS

As explained under table 4, stations are asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. The number of farm customers reported for 1939 was 90,899 or 5.6 per cent of the combined domestic and farm customers, and they consumed 98,265,070 kilowatt hours. From the 1931 population census data we know the actual number of farms served was considerably greater than this, the difference probably being included with domestic services. Farms close to large urban centres receiving service at rates similar to urban customers still will be classed as domestic customers in many cases. In Ontario where the majority of farm customers are served by the provincial commission and are classed as farm customers the difference from the 1931 census figure was small. In 1939 the Ontario farm customers reported were 54,479 or 60 per cent of the total. Quebec stations reported 24,965 farm customers. For the other provinces 11,455 were reported, but if the 1931 data can be used as a criterion this is considerably less than the actual number of farms served. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality itself distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. The average number of domestic service customers per 100 population increased from 13.9 in 1938 to 14.4 in 1939. These averages are based on the Bureau's estimated populations and each residence or family served is counted as one customer. These averages were first computed for 1920 and since then the average for Canada has increased from .86 to 14.4, or by 62 per cent. In Alberta the density was fairly high in 1920 and the increase between 1920 and 1939 was only 10 per cent greater than the increase in population, but in the other provinces the increase has been much greater than the increase in population. In New Brunswick the average number of domestic service customers per 100 population increased by 165 per cent, in Nova Scotia by 118 per cent, in Prince Edward Island by 84 per cent, in Quebec by 39 per cent, in Ontario by 90 per cent, in Manitoba by 27 per cent, in Saskatchewan by 56 per cent, and in British Columbia by 47 per cent. When comparing these rates of increase the densities at the

beginning of the period should be analyzed; for example, Manitoba had a density of 8.76 in 1920, or more than twice the density of New Brunswick and three times that of Prince Edward Island.

#### TABLE 9 - POLE LINE MILEAGE

Transmission and distribution lines have been combined in this table instead of being separated as in reports previous to 1934 and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario, and Manitoba have extensive mileages.

#### TABLES 10-11-12-13 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 7,674,000 kilowatt hours being generated during the year by this auxiliary equipment.

#### TABLE 14 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt-hour meters the kilowatt hours are estimated as best possible. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 Kv.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the



relative position of the supply to the demand on a kilowatt hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. In some cases this changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale has been growing quite rapidly. In 1924 this secondary power amounted to only 260,489,000 kilowatt hours, but in 1937 it had grown to 7,313,014,000 kilowatt hours and in 1938 it declined to 5,751,350,000 kilowatt hours but increased in 1939 to 6,590,378,000 kilowatt hours.

ELECTRICITY SOLD FOR USE IN ELECTRIC BOILERS

(Thousands of Kilowatt Hours)

Month	1936	1937	1938	1939
January	560,230	708,188	567,585	575,082
February	529,423	664,150	498,506	572,203
March	622,208	706,651	541,016	587,329
April	685,527	648,127	447,901	495,714
May	581,429	620,589	420,817	545,067
June	518,029	600,398	344,815	495,510
July	504,160	513,634	362,027	455,716
August	490,277	491,409	407,929	473,859
September	498,474	487,348	479,317	552,752
October	618,109	566,436	536,493	634,114
November	654,015	636,633	593,051	637,114
December	680,960	669,451	551,893	565,918
TOTAL	6,942,841	7,313,014	5,751,350	6,590,378

TABLE 15 - FUEL

Fuel used is almost entirely local coal, oil, and gas, and Saskatchewan and Nova Scotia are the only provinces using any substantial quantities of fuel to develop electric energy. Nova Scotia has several large hydro-electric developments, but Saskatchewan has only one which is on the Manitoba boundary and is included with Manitoba stations in these statistics. "Other fuel" is composed of steam purchased by a Nova Scotia station and sawdust and "hog" fuel in British Columbia.



# DOMESTIC SERVICE

Below is a table bringing together and analyzing the domestic service data for each province. The concentration of population in the cities, towns and villages having electric service would affect the number of customers, the number per 100 population, and ratios of consumption to total provincial consumptions and to the domestic consumption in Canada. The price would affect consumption, average bill, average cost per kilowatt hour, and, to a lesser degree, the number of customers. The method of charging for service would also have a marked effect on the average consumption and average cost per kilowatt hour. Flat rate charges and sliding scales which induce increased consumption, particularly the first, tend to greatly increase the kilowatt hour consumption and reduce the average cost per kilowatt hour although they increase the connected load by only a fraction of the rate of consumption increase. The habits and customs of the people also would have an effect on the consumption. British Columbia ranked first in density of customers, Ontario was second and Quebec third. Manitoba showed by far the lowest average cost per kilowatt hour and the largest consumption per customer and per capita. These were considerably affected by the flat rate for water heaters in Winnipeg. Flat rate water heaters in Ontario also affect Ontario averages, but not to the same extent because the consumption of these heaters was a smaller percentage of the total consumption than in Manitoba.

## DOMESTIC SERVICE, 1939

PROVINCE	NUMBER OF CUSTOMERS		AVERAGE BILL FOR YEAR \$	AVERAGE PER KILOWATT HOUR ¢	AVERAGE ANNUAL CONSUMPTION		CONSUMPTION BY DOMESTIC SERVICE	
	Total	Per 100 Population			Per Customer Kw.Hr.	Per Capita Kw.Hr.	Per cent of total Provincial Consumption	Per cent of Dominion Consumption
P.E. Island	5,067	5.33	32.21	5.61	574	31	37.5	0.1
Nova Scotia	62,034	11.20	27.56	4.37	630	71	9.0	1.7
New Brunswick	46,485	10.31	28.13	4.85	581	60	5.9	1.2
Quebec	434,825	13.55	21.08	2.94	716	97	2.0	13.5
Ontario	719,871	19.19	27.31	1.43	1,909	366	17.2	59.4
Manitoba	81,091	11.15	40.84	1.03	3,956	441	18.1	13.9
Saskatchewan	49,980	5.27	40.10	4.87	824	43	24.6	1.8
Alberta	68,267	8.65	31.42	5.08	618	53	16.8	1.8
B.C. & Yukon	156,052	20.06	27.73	2.85	974	195	7.6	6.6
CANADA	1,623,672	14.35	26.97	1.90	1,423	204	8.2	100.0

MILLIONS  
OF  
KILOWATT  
HOURS

# CENTRAL ELECTRIC STATIONS 1924-1940

TOTAL MONTHLY  
OUTPUT

BOILER CONSUMPTION

EXPORTS  
TO  
U.S.A.

OUTPUT LESS BOILER  
CONSUMPTION AND EXPORTS

1924

1925

1926

1927

1928

1929

1930

1931

1932

1933

1934

1935

1936

1937

1938

1939

1940

2500

2000

1500

1000

500

0

TABLE 1 - COMPARATIVE SUMMARY, 1929-1939.

PRINCIPAL DATA BY CLASS OF STATION	1939	1938	1937	1936	1935
<b>ELECTRIC POWER PLANTS</b>					
Total.....	611	589	568	561	566
Hydroelectric.....	313	313	314	312	316
Fuel.....	298	276	254	249	250
Commercial.....	427	406	369	390	397
Municipal.....	164	183	179	171	169
<b>CAPITAL</b>					
Total.....	1,564,603,211	1,545,416,592	1,497,330,231	1,483,116,649	1,459,821,188
Commercial.....	1,014,704,665	1,002,891,485	975,950,159	957,468,865	962,263,142
Municipal.....	549,898,546	542,525,107	517,380,072	525,649,784	497,558,026
Generating.....	1,396,836,921	1,377,120,289	1,337,399,695	1,326,820,103	1,307,710,173
Non-generating.....	167,764,290	168,296,303	159,930,536	156,296,546	152,110,995
<b>REVENUE (1)</b>					
Total.....	151,880,569	144,331,627	143,546,643	135,865,173	127,177,954
Commercial.....	92,535,049	87,697,078	85,283,008	78,882,504	79,341,554
Municipal.....	59,345,920	56,634,549	58,263,635	56,982,669	47,836,400
Generating.....	127,463,222	120,784,939	120,465,135	112,776,015	105,638,584
Non-generating.....	24,397,747	23,546,688	23,081,508	23,089,158	21,539,370
<b>EXPENSES (2)</b>					
Total.....	91,982,372	87,364,340	84,185,082	77,939,050	79,625,134
Commercial.....	42,471,534	41,067,998	41,132,931	36,530,527	33,836,054
Municipal.....	49,510,838	46,296,342	43,052,151	41,408,523	45,789,080
Generating.....	51,570,137	48,946,422	46,114,640	41,390,019	43,904,771
Non-generating.....	40,412,235	38,417,918	38,070,442	36,549,031	35,720,363
<b>POLE LINE MILEAGE</b>					
Total.....	72,132	66,977	63,035	59,436	57,602
Commercial.....	30,288	29,355	28,332	27,271	26,520
Municipal.....	41,844	37,622	34,703	32,165	31,082
Generating.....	57,084	52,373	48,866	45,099	43,372
Non-generating.....	15,048	14,604	14,169	14,337	14,230
<b>CUSTOMERS</b>					
Total.....	1,941,663	1,873,621	1,805,995	1,740,793	1,694,703
Domestic service (3).....	1,623,672	1,559,394	1,500,128	1,443,059	1,401,983
Commercial light.....	262,590	259,893	252,305	245,144	240,468
Power (small).....	43,896	41,999	41,415	40,742	40,292
Power (large).....	9,267	10,152	10,066	9,840	9,989
Street lighting.....	2,238	2,183	2,081	2,008	1,971
Commercial stations.....	889,418	859,506	833,711	802,676	779,400
Municipal stations.....	1,052,245	1,014,115	972,284	938,117	915,303
Generating stations.....	998,067	954,797	916,648	866,407	837,278
Non-generating stations.....	943,596	918,824	889,347	874,386	857,425
<b>ELECTRIC ENERGY GENERATED</b>					
Total kilowatt hours (thousands).....	28,338,030	26,154,160	27,687,645	25,402,282	23,283,033
Commercial.....	21,290,930	19,488,323	20,315,627	18,515,225	17,767,949
Municipal.....	7,047,100	6,665,837	7,372,018	6,887,057	5,515,084
Exports to the United States (5)...(thousands)..Kw.h.	1,908,756	1,822,103	1,843,227	1,573,980	1,359,021
Imports from the United States (5)..(thousands)..Kw.h.	666	624	1,317	765	666
<b>EQUIPMENT IN GENERATING STATIONS (MAIN PLANT ONLY)</b>					
Total Primary Power.....H.P.	7,607,122	7,476,976	7,342,085	7,119,272	7,104,142
Total in commercial stations.....H.P.	5,385,632	5,300,183	5,203,529	5,012,968	5,138,200
Total in municipal stations.....H.P.	2,221,490	2,176,793	2,138,556	2,106,304	1,965,942
Total Secondary Power.....Kv.a.	6,435,416	6,327,868	6,206,465	6,025,999	5,893,984
Total in commercial stations.....Kv.a.	4,654,745	4,586,273	4,496,443	4,340,869	4,317,823
Total in municipal stations.....Kv.a.	1,780,671	1,741,595	1,710,022	1,685,130	1,576,161
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power.....H.P.	194,139	195,628	197,350	200,621	206,831
Secondary power.....Kv.a.	165,785	166,660	167,839	172,327	176,890

(1) Duplications excluded.

(2) Includes wages, cost of power, fuel and taxes, but not other expenses.

(3) Farm service is included with domestic service.

(4) Revised.

(5) By central electric stations only. (See page 2)



TABLEAU 1 - SOMMAIRE COMPARATIF, 1929-1939.

1934	1933	1932	1931	1930	DONNEES PRINCIPALES PAR CLASSES D'USINES
573 314 259 402 171	575 314 261 403 172	572 312 260 402 170	559 307 252 396 163	507 311 276 421 166	<u>USINES ELECTRIQUES</u> <u>Total</u> Hydrauliques A combustible Commerciales Municipales
1,430,852,166 956,382,436 474,469,730 1,281,048,308 149,803,863	1,386,532,055 913,946,953 472,585,102 1,240,169,785 146,362,270	1,335,886,987 880,013,400 455,873,587 1,191,499,567 144,387,420	1,229,988,951 785,915,480 444,073,471 1,092,292,089 137,696,862	1,138,200,016 723,890,071 414,309,945 995,701,285 142,498,731	<u>CAPITAL</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
124,463,613 77,309,001 47,154,612 104,089,041 20,374,572	117,532,081 73,082,078 44,450,003 98,735,084 18,796,997	121,212,679 73,124,089 48,088,590 100,821,712 20,390,967	122,310,730 72,103,930 50,206,800 101,475,523 20,835,207	126,038,145 73,261,572 52,776,573 104,632,540 21,405,605	<u>RECETTES (1)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
75,948,821 31,778,237 44,170,584 40,911,118 35,037,703	73,051,651 29,169,633 43,882,018 38,608,455 34,443,196	74,306,251 30,349,320 43,956,931 40,262,157 34,044,094	75,235,767 32,418,131 42,817,636 41,336,873 33,898,894	74,209,469 33,712,063 40,497,406 40,646,659 33,562,810	<u>DEPENSES (2)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
56,214 26,476 29,738 42,537 13,677	56,570 25,129 31,441 43,625 12,945	53,845 25,010 28,835 40,675 13,170	52,399 24,299 28,100 39,709 12,690	48,814 23,614 25,200 35,707 13,107	<u>LIGNES SUR POTEAUX</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
1,660,079 1,379,153 229,187 41,429 8,325 1,985	1,666,882 1,371,806 244,283 40,641 8,160 1,992	1,657,454 1,357,462 248,487 28,942 20,593 1,970	1,632,792 1,336,721 244,634 25,913 23,583 1,941	1,607,881 1,317,324 238,847 24,865 25,150 1,724	<u>ABONNES</u> <u>Total</u> Service domestique (3) Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
760,462 899,617 819,419 840,660	776,581 890,301 843,324 823,558	776,400 881,054 846,420 811,034	758,285 874,507 835,460 797,332	745,608 862,158 814,268 793,498	Usines commerciales Usines municipales Usines génératrices Usines non-génératrices
21,197,124 16,060,883 5,136,241	17,338,990 13,665,974 3,673,016	16,052,057 12,338,216 3,713,841	16,330,867 12,191,139 4,139,707	18,093,806 12,937,014 5,156,788	<u>ENERGIE ELECTRIQUE GENEREE</u> <u>Total Kw. heures générés (milliers)</u> Commerciale Municipale
1,243,079 642	983,561 608	659,691 552	1,227,036 5,446	1,612,281 5,757	Exportations d'électricité aux Etats-Unis (5)..... (milliers).. Kw.h. Importations d'électricité des Etats-Unis (5)..... (milliers).. Kw.h.
6,854,161 4,961,639 1,892,522 5,699,956 4,179,536 1,520,419	6,616,006 4,707,096 1,908,910 5,491,685 3,956,475 1,535,210	6,343,654 4,577,493 1,766,161 5,278,204 3,850,009 1,428,195	5,706,757 4,046,810 1,659,947 4,727,376 3,388,926 1,338,450	5,401,108 3,794,819 1,606,289 4,474,865 3,181,428 1,293,437	<u>MACHINERIE DANS LES USINES GENERATRICES</u> (Usines principales seulement) <u>Total force motrice primaire.....H.P.</u> Total dans les usines commerciales.....H.P. Total dans les usines municipales.....H.P. <u>Total force motrice secondaire.....Kv.a.</u> Total dans les usines commerciales.....Kv.a. Total dans les usines municipales.....Kv.a.
207,431 177,244	193,569 164,732	184,879 157,077	184,043 157,221	171,453 145,678	<u>OUTILLAGE D'USINES AUXILIAIRES</u> Force motrice primaire.....H.P. Force motrice secondaire.....Kv.a.

- 1) Duplications exclues.
- 2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.
- 3) L'éclairage des fermes est inclus dans l'éclairage domestique.
- 4) Révisé.
- 5) Par usines centrales électriques seulement. (Voir page 2).

TABLE 2 <sup>1</sup> DOMESTIC SERVICE, 1930 - 1939.

Year Année	Number of Customers Nombre d'usagers	Kilowatt Hours Consumed Kilowatt heures consommés	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager	Average Annual Bill Compte moyen de l'année	Revenue per Kilowatt Hour Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	\$
CANADA ..... 1930	1,317,324	1,489,575	34,114,680	1,131	25.90	2.29
1931	1,336,721	1,563,705	35,259,391	1,170	26.38	2.25
1932	1,357,462	1,639,498	36,422,073	1,208	26.83	2.22
1933	1,371,806	1,650,395	35,953,823	1,208	26.81	2.18
1934	1,379,153	1,717,090	36,507,822	1,210	26.87	2.13
1935	1,401,983	1,769,848	36,773,643	1,262	26.23	2.08
1936	1,443,059	1,887,116	38,399,102	1,308	26.61	2.03
1937	1,500,128	2,007,433	39,253,133	1,336	26.17	1.96
1938	1,559,394	2,172,500	41,302,107	1,393	26.49	1.90
1939	1,623,672	2,310,691	43,793,482	1,423	26.97	1.90
Change (Changement) 1930-1939						
Amount (Volume)	306,348	821,316	9,678,802	+ 292	+ 1.07	- 0.39
Per cent (p.c.)	23.26	55.14	28.37	+ 25.82	+ 4.13	- 17.03
PRINCE EDWARD ISLAND .. 1930	3,785	1,170	112,566	309	29.74	9.62
1931	3,980	1,343	120,606	337	30.30	8.98
1932	3,978	1,498	129,835	377	32.63	8.67
1933	3,970	1,584	135,231	399	34.06	8.54
1934	4,097	1,605	133,843	392	32.67	8.34
1935	4,199	1,722	134,740	410	32.08	7.82
1936	4,379	2,035	145,442	465	33.21	7.15
1937	4,545	2,232	152,660	491	33.59	6.84
1938	4,799	2,579	150,994	537	31.46	5.85
1939	5,067	2,908	163,226	574	32.21	5.61
Change (Changement) 1930-1939						
Amount (Volume)	1,282	1,738	50,660	+ 285	+ 2.47	- 4.01
Per cent (p.c.)	33.87	148.55	45.00	+ 85.8	+ 8.3	- 41.7
NOVA SCOTIA..... 1930	42,703	15,924	1,097,500	373	25.70	6.89
1931	45,262	19,120	1,151,609	423	25.45	6.02
1932	46,421	21,213	1,201,279	457	25.88	5.66
1933	47,124	21,800	1,199,951	463	25.46	5.50
1934	48,852	23,637	1,257,599	484	25.74	5.32
1935	52,300	25,937	1,330,632	496	25.44	5.13
1936	54,763	29,212	1,457,054	533	26.61	4.99
1937	58,165	31,692	1,535,298	545	26.40	4.84
1938	58,556	35,307	1,595,086	603	27.24	4.52
1939	62,034	39,084	1,709,507	630	27.56	4.37
Change (Changement) 1930-1939						
Amount (Volume)	19,331	23,160	612,007	+ 257	+ 1.86	- 2.52
Per cent (p.c.)	45.27	145.44	55.76	+ 68.9	+ 7.2	- 36.6
NEW BRUNSWICK..... 1930	32,426	15,734	839,395	485	25.89	5.33
1931	33,964	17,676	901,325	520	26.54	5.10
1932	35,543	19,230	971,897	541	27.34	5.05
1933	34,959	18,740	954,423	536	27.30	5.09
1934	35,364	19,607	962,212	554	27.21	4.91
1935	36,602	20,597	994,895	563	27.18	4.83
1936	38,660	22,049	1,068,038	570	27.63	4.84
1937	41,604	23,488	1,117,953	565	26.87	4.76
1938	43,556	25,367	1,232,937	582	28.31	4.86
1939	46,485	26,989	1,307,772	581	28.13	4.85
Change (Changement) 1930-1939						
Amount (Volume)	14,059	11,255	468,377	+ 96	+ 2.24	- .48
Per cent (p.c.)	43.36	71.53	55.80	+ 19.8	+ 8.7	- 9.0
QUEBEC..... 1930	374,725	205,457	8,082,058	548	21.57	3.93
1931	375,764	223,671	8,100,380	595	21.56	3.62
1932	385,211	239,032	8,210,401	621	21.31	3.43
1933	385,175	240,110	7,795,948	623	20.24	3.25
1934	378,706	237,322	7,776,391	627	20.53	3.28
1935	378,388	226,285	7,297,458	598	19.29	3.22
1936	390,711	241,799	7,723,973	619	19.77	3.19
1937	407,155	265,405	8,108,946	652	19.92	3.06
1938	421,178	287,107	8,669,034	682	20.58	3.02
1939	434,825	311,420	9,167,384	716	21.08	2.94
Change (Changement) 1930-1939						
Amount (Volume)	60,100	105,963	1,085,326	+ 168	- .49	- .99
Per cent (p.c.)	16.04	51.57	13.43	+ 30.7	- 2.27	- 25.2

<sup>1</sup> Revenues, average annual bill and revenue per kilowatt hour include a Dominion tax of 8 p.c., from September 13, 1939.



TABLEAU 2 - SERVICE DOMESTIQUE, 1930 - 1939.

Year Année	Number of Customers Nombre d'usagers	Kilowatt Hours Consumed Kilowatt heures consommées	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager	Average Annual Bill Compte moyen de l'année	Revenue per Kilowatt Hour Moyenne par kilowatt heure			
		(000)	\$	kw. hrs.	\$	\$			
ONTARIO ..... 1930	563,152	840,992	14,733,013						
1931	579,721	868,072	15,448,069	1,493	26.16	1.75			
1932	585,343	912,169	16,170,224	1,497	26.65	1.78			
1933	598,347	917,649	16,262,707	1,558	27.63	1.77			
1934	605,885	980,978	16,811,849	1,534	27.18	1.77			
1935	618,111	1,023,929	17,171,434	1,619	27.75	1.71			
1936	634,052	1,098,598	17,716,636	1,657	27.78	1.68			
1937	660,262	1,174,358	17,718,464	1,733	27.94	1.61			
1938	691,498	1,285,568	18,456,575	1,779	26.84	1.51			
1939	719,871	1,374,325	19,657,658	1,859	26.69	1.44			
Change (Changement) 1930-1939				1,909	27.31	1.43			
Amount (Volume)	156,719	533,333	4,924,645	+	416	+	1.15	-	.32
Per cent (p.c.)	27.83	63.42	33.43	+	27.9	+	4.4	-	18.3
MANITOBA ..... 1930	72,395	242,718	2,680,036						
1931	71,324	257,482	2,679,138	3,353	37.02	1.10			
1932	71,954	270,272	2,873,481	3,610	37.56	1.04			
1933	72,935	275,048	2,743,877	3,756	39.93	1.06			
1934	73,545	282,067	2,782,475	3,771	37.62	1.00			
1935	74,538	289,314	2,914,963	3,835	37.83	0.99			
1936	75,858	296,110	3,029,140	3,881	39.11	1.01			
1937	76,516	303,271	3,122,397	3,903	39.93	1.02			
1938	77,762	311,793	3,223,605	3,963	40.81	1.03			
1939	81,091	320,827	3,311,662	4,010	41.45	1.03			
Change (Changement) 1930-1939				3,956	40.84	1.03			
Amount (Volume)	8,696	78,108	631,626	+	603	+	3.82	-	0.07
Per cent (p.c.)	12.01	32.18	23.57	+	17.98	+	10.3	-	6.4
ASKATCHEWAN ..... 1930	45,777	35,380	1,905,257						
1931	44,078	35,524	1,809,029	773	41.62	5.39			
1932	44,952	36,142	1,802,758	806	41.04	5.09			
1933	44,319	36,317	1,775,697	804	40.10	4.99			
1934	44,493	34,906	1,741,371	819	40.07	4.89			
1935	45,451	35,402	1,795,683	785	39.14	4.99			
1936	46,478	36,044	1,851,794	779	39.51	5.07			
1937	46,630	37,234	1,852,503	776	39.84	5.14			
1938	48,060	39,077	1,903,731	798	39.73	4.98			
1939	49,980	41,198	2,004,433	813	39.61	4.87			
Change (Changement) 1930-1939				824	40.10	4.87			
Amount (Volume)	4,203	5,818	99,176	+	51	-	1.52	-	.52
Per cent (p.c.)	9.18	16.44	5.21	+	6.6	-	3.7	-	9.6
ALBERTA ..... 1930	57,190	30,458	1,674,340						
1931	56,890	30,196	1,721,292	533	29.38	5.50			
1932	57,459	29,792	1,714,412	531	30.26	5.70			
1933	57,330	29,668	1,725,351	518	29.84	5.75			
1934	58,375	30,378	1,764,295	517	30.15	5.83			
1935	58,127	31,636	1,714,128	520	30.22	5.81			
1936	59,600	33,481	1,789,422	544	29.49	5.42			
1937	61,121	35,339	1,865,520	562	30.02	5.34			
1938	63,030	38,089	1,983,226	578	30.52	5.28			
1939	68,267	42,210	2,145,093	604	31.46	5.21			
Change (Changement) 1930-1939				618	31.42	5.08			
Amount (Volume)	11,077	11,752	470,753	+	85	+	2.14	-	.42
Per cent (p.c.)	19.37	38.58	28.12	+	15.9	+	7.3	-	7.6
BRITISH COLUMBIA ) ..... 1930	125,171	101,742	2,990,515						
YUKON )	125,748	110,621	3,327,943	813	23.89	2.94			
1932	126,601	110,150	3,348,086	880	26.47	3.01			
1933	127,647	109,479	3,357,638	870	26.45	3.04			
1934	129,837	106,590	3,277,787	858	26.30	3.07			
1935	134,267	115,026	3,419,710	821	25.25	3.08			
1936	138,558	127,788	3,617,603	857	25.47	2.97			
1937	144,130	134,414	3,779,392	922	26.11	2.83			
1938	150,955	147,613	4,086,919	933	26.22	2.81			
1939	156,052	151,930	4,326,747	978	27.07	2.77			
Change (Changement) 1930-1939				974	27.73	2.85			
Amount (Volume)	30,881	50,188	1,336,232	+	161	+	3.84	-	.09
Per cent (p.c.)	24.67	49.33	44.68	+	19.8	+	16.1	-	3.1

Recettes, le compte moyen de l'année et les revenus par kilowatt heure comprenant une taxe fédérale de 8 p.c. à compter du 13 Septembre 1939.



TABLE 3 - ELECTRIC POWER PLANTS, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Total number of generating stations.....	611	9	46	12	96
Per cent of total for Canada.....	100.00	1.47	7.53	1.96	15.71
COMMERCIAL .....	427	7	21	7	80
Hydraulic.....	205	5	11	4	78
Fuel.....	222	2	10	3	2
MUNICIPAL.....	184	2	25	5	16
Hydraulic.....	108	-	18	3	14
Fuel.....	76	2	7	2	2
With water wheels and turbines.....	313	5	29	7	78
With steam engines only.....	30	-	2	1	-
With steam turbines only.....	24	1	6	1	1
With gas or oil engines only.....	238	3	9	2	3
With both steam engines and turbines.....	5	-	-	1	-
With both steam and gas or oil engines.....	1	-	-	-	-
With alternating current dynamos only.....	461	9	43	10	94
With direct current dynamos only.....	146	-	3	1	2
With both alternating and direct current dynamos...	3	-	-	1	-
COMMERCIAL ORGANIZATIONS .....	403	8	22	16	69
Number generating power.....	299	6	13	6	41
Number buying power for redistribution.....	104	2	9	10	28
MUNICIPALITIES.....	469	2	27	10	29
Number generating power.....	78	2	9	2	10
Number buying power for redistribution.....	391	-	18	8	19
AUXILIARY PLANTS.....	64	2	10	3	5
To hydraulic stations.....	39	2	4	-	4
To non-generating stations.....	25	-	6	3	1

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.

TABLEAU 3 - USINES GENERATRICES, 1939

	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
	138	30	138	71	71	<u>Nombre d'usines génératrices</u>
	22.59	4.91	22.59	11.62	11.62	Pourcentage du total pour le Canada
	64	17	106	62	63	<u>COMMERCIALES</u>
	59	4	-	4	40	Hydrauliques
	5	13	106	58	23	A combustible
	74	13	32	9	8	<u>MUNICIPALES</u>
	65	2	-	1	5	Hydrauliques
	9	11	32	8	3	A combustible
	138	6	-	5	45	Avec roues et turbines hydrauliques
	8	3	-	11	5	Avec machines à vapeur seulement
	-	1	6	4	4	Avec turbines à vapeur seulement
	6	19	130	49	17	Avec moteurs à gaz ou à pétrole seulement
	-	-	2	2	-	Avec machines et turbines à vapeur à la fois
	-	1	-	-	-	Avec machines à vapeur à gaz et à pétrole
	135	25	48	32	65	Avec dynamos à courant alternatif seulement
	3	3	90	38	6	Avec dynamos à courant direct seulement
	-	1	-	1	-	Avec dynamos à courant alternatif et direct
	59	20	89	63	56	<u>USINES COMMERCIALES</u>
	40	15	87	53	39	Nombre d'usines génératrices
	19	7	2	10	17	Nombre d'usines achetant de l'électricité pour la revendre
	332	14	23	15	16	<u>MUNICIPALITES</u>
	16	9	16	7	6	Nombre d'usines génératrices
	316	5	7	8	10	Nombre d'usines achetant de l'électricité pour la revendre
	9	6	-	9	20	<u>USINES AUXILIAIRES</u>
	5	2	-	8	14	Aux usines hydrauliques
	4	4	-	1	6	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.

TABLE 4 - CAPITAL, 1939.

	Canada	Prince Edward Island	Nova- Scotia	New Brunswick	Quebec
<u>TOTAL CAPITAL</u> .....	1,564,603,211	1,401,600	36,378,868	34,467,786	677,457,217
Per cent of total for Canada.....	100.00	0.09	2.33	2.20	43.30
Generation.....	930,524,064	749,989	22,374,341	23,064,392	478,139,632
Transmission and distribution.....	529,751,597	558,513	11,734,164	10,037,838	155,157,497
General.....	104,327,550	93,098	2,270,363	1,365,556	44,160,088
<u>TOTAL CAPITAL IN COMMERCIAL STATIONS</u> .....	1,014,704,665	1,140,316	16,797,900	23,024,809	668,307,840
Generation.....	690,817,363	587,247	7,818,609	18,614,159	473,300,983
Transmission and distribution.....	254,501,373	480,470	7,100,183	3,566,230	151,276,825
General.....	69,385,929	72,599	1,879,108	844,420	43,730,032
Non-generating stations.....	40,542,159	5,500	6,676,747	2,163,394	667,731
Generating stations.....	974,162,506	1,134,816	10,121,153	20,861,415	667,640,109
Hydraulic stations.....	949,875,498	124,278	5,164,396	17,639,472	667,591,918
Fuel stations.....	24,287,008	1,010,538	4,956,757	3,221,943	48,191
<u>TOTAL CAPITAL IN MUNICIPAL STATIONS</u> .....	549,898,546	261,284	19,580,968	11,442,977	9,149,377
Generation.....	239,706,701	162,742	14,555,732	4,450,233	4,838,649
Transmission and distribution.....	275,250,224	78,043	4,633,981	6,471,608	3,880,672
General.....	34,941,621	20,499	391,255	521,136	430,056
Non-generating stations.....	127,222,131	-	1,916,136	1,376,060	2,576,489
Generating stations.....	422,676,415	261,284	17,664,832	10,066,917	6,572,888
Hydraulic stations.....	399,980,253	-	16,759,445	5,681,019	6,259,442
Fuel stations.....	22,696,162	261,284	905,387	4,385,898	313,446
<u>TOTAL CAPITAL IN NON-GENERATING STATIONS</u> .....	167,764,290	5,500	8,592,883	3,539,454	3,244,220
Generation.....	3,630,396	-	1,742,018	338,678	696,888
Transmission and distribution.....	141,025,962	5,500	5,254,508	2,446,157	2,375,403
General.....	23,107,932	-	1,596,357	754,619	171,929
<u>TOTAL CAPITAL IN GENERATING STATIONS</u> .....	1,396,838,921	1,396,100	27,785,985	30,928,332	674,212,997
Generation.....	926,893,668	749,989	20,632,323	22,725,714	477,442,744
Transmission and distribution.....	388,725,635	553,013	6,479,656	7,591,681	152,782,094
General.....	81,219,618	93,098	674,006	610,937	43,988,159
Hydraulic stations.....	1,349,855,751	124,278	21,923,841	23,320,491	673,851,360
Fuel stations.....	46,983,170	1,271,822	5,862,144	7,607,841	361,637
<u>TOTAL CAPITAL</u>					
Average per H.P. of primary power.....	206	168	228	247	186
Average per H.P. including auxiliary equipment.....	201	164	211	242	185
Average per Kv.A. of dynamo capacity.....	243	224	268	291	211
Average per Kv.A. including auxiliary equipment.....	237	222	249	285	209
<u>GENERATION</u>					
Average cost per H.P. (including auxiliary equipment)					
In all generating stations.....	120	88	140	165	131
In hydraulic stations.....	122	139	175	178	131
In fuel stations.....	72	84	61	117	75

X - Capital invested in one hydraulic station in Saskatchewan included in Manitoba.



TABLEAU 4 - CAPITAL, 1939.

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
562,672,053 35.96 275,652,868 250,120,168 36,899,017	78,840,760 5.04 44,581,859 30,406,414 3,852,487	26,817,115 1.71 13,280,161 12,123,726 1,413,228	28,572,179 1.83 12,651,573 14,205,317 1,715,289	117,995,633 7.54 60,029,249 45,407,960 12,558,424	<u>TOTAL CAPITAL</u> Pourcentage du total pour le Canada Génération Transmission et distribution Généralités
111,923,914 83,802,159 20,381,800 7,739,955 3,013,885 108,910,029 108,884,932 25,097	42,308,789 30,672,743 11,034,535 601,511 1,061,995 41,246,794 40,855,258 391,536	12,636,038 6,202,087 5,540,991 892,960 1,780,148 10,855,890 - 10,855,890	22,709,804 10,517,695 10,998,760 1,193,349 113,389 22,596,415 19,358,595 3,237,820	115,855,255 59,301,681 44,121,579 12,431,995 25,059,370 90,795,885 90,256,649 539,236	<u>TOTAL CAPITAL DANS LES USINES COMMERCIALES</u> Génération Transmission et distribution Généralités Usines non-génératrices Usines génératrices Usines hydrauliques Usines à combustible
450,748,139 191,850,709 229,738,368 29,159,062 110,201,067 340,547,072 340,331,491 215,581	36,531,971 13,909,116 19,371,879 3,250,976 6,180,767 30,351,204 29,660,700 690,504	14,181,077 7,078,074 6,582,735 520,268 1,645,961 12,535,116 - 12,535,116	5,862,375 2,133,878 3,206,557 521,940 2,267,385 3,594,990 246,465 3,348,525	2,140,378 727,568 1,286,381 126,429 1,058,266 1,082,112 1,041,691 40,421	<u>TOTAL CAPITAL DANS LES USINES MUNICIPALES</u> Génération Transmission et distribution Généralités Usines non-génératrices Usines génératrices Usines hydrauliques Usines à combustible
113,214,952 183,248 97,198,131 15,833,573	7,242,762 396,030 5,882,330 964,402	3,426,109 - 3,120,910 305,199	2,380,774 20,000 2,131,460 229,314	26,117,636 253,534 22,611,563 3,252,539	<u>TOTAL CAPITAL DANS LES USINES NON-GENERATRICES</u> Génération Transmission et distribution Généralités
449,457,101 275,469,620 152,922,037 21,065,444 49,216,423 240,678	71,597,998 44,185,829 24,524,084 2,888,085 70,515,958 1,082,040	23,391,006 13,280,161 9,002,816 1,108,029 - 23,391,006	26,191,405 12,631,573 12,073,857 1,485,975 19,605,060 6,586,345	91,877,997 59,775,715 22,796,397 9,305,885 91,298,340 579,657	<u>TOTAL CAPITAL DANS LES USINES GENERATRICES</u> Génération Transmission et distribution Généralités Usines hydrauliques Usines à combustible
249 245 311 305	156 147 192 179	163 163 193 193	190 169 232 204	200 184 244 225	<u>TOTAL CAPITAL</u> Moyenne par H.P. de la machinerie d'énergie primaire Moyenne par H.P. y compris machinerie auxiliaire Moyenne par Kv.A. de la capacité des dynamos Moyenne par Kv.A. y compris machinerie auxiliaire
120 120 117	84 83 138	81 - 81	75 110 36	94 94 77	<u>GENERATION</u> Moyenne par H.P. y compris machinerie auxiliaire Dans les usines génératrices Dans les usines hydrauliques Dans les usines à combustible

- Capital engagé dans une usine hydraulique de la Saskatchewan inclus sous Manitoba.

TABLE 5 - REVENUE, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
REVENUE FROM SALE OF ELECTRIC ENERGY.....	151,880,969	326,420	5,548,336	3,838,907	56,619,092
For domestic service.....(xx)	43,793,482	163,226	1,709,507	1,307,772	9,167,384
For commercial light.....	25,741,384	98,403	962,635	579,215	7,540,008
For power (small).....	9,789,093	25,324	364,346	205,307	2,558,008
For power (large).....	67,641,989	20,509	2,312,726	1,630,123	36,122,306
For street lighting.....	4,915,021	18,958	199,123	116,490	1,231,386
REVENUE OF COMMERCIAL STATIONS.....	92,535,049	258,834	3,477,548	2,324,501	55,090,885
Non-generating.....	6,521,960	2,033	1,317,418	432,539	141,046
Generating.....	86,013,089	256,801	2,160,130	1,891,962	54,949,839
Hydraulic.....	81,030,735	23,939	672,593	1,432,036	54,924,919
Fuel.....	4,982,354	232,862	1,487,537	459,926	24,920
REVENUE OF MUNICIPAL STATIONS.....	59,345,920	67,586	2,070,788	1,514,406	1,528,207
Non-generating.....	17,875,787	-	412,053	372,848	560,329
Generating.....	41,470,133	67,586	1,658,735	1,141,558	967,878
Hydraulic.....	35,815,197	-	1,469,209	655,089	891,352
Fuel.....	5,654,936	67,586	189,526	486,469	76,526
Revenue of non-generating stations.....	24,397,747	2,033	1,729,471	805,387	701,375
Revenue of generating stations.....	127,483,222	324,387	3,818,865	3,033,520	55,917,717
Revenue of hydraulic stations.....	116,845,932	23,939	2,141,802	2,087,125	55,816,271
Revenue of fuel stations.....	10,637,290	300,448	1,677,063	946,395	101,446
Average revenue per H.P. of primary power.....	19.97	39.05	34.73	27.54	15.58
Average revenue per H.P. in main and auxiliary plants....	19.47	38.29	32.25	26.97	15.43
Average revenue per Kv.A. of dynamo capacity.....	23.60	52.18	40.90	32.38	17.66
Average revenue per Kv.A. in main and auxiliary plants...	23.01	51.78	37.99	31.79	17.48
Average revenue per kilowatt hour consumed..... Cents	.54	4.21	1.27	.84	.37
Average revenue per domestic service customer.....(xx)	26.97	32.21	27.56	28.13	21.06
Average revenue per commercial light customer.....	98.03	84.11	92.85	88.16	101.01
Average revenue per small power customer.....	223.01	234.48	177.04	198.75	213.77
Average revenue per large power customer.....	7,299.23	2,563.63	14,188.50	8,764.10	30,177.37
Average revenue per kilowatt hour - domestic and farm service..... Centr xx	1.90	5.61	4.37	4.85	2.94
Average revenue per kilowatt hour - commercial light..... Cents	2.32	5.14	4.55	3.31	2.78

/ Affected by power purchased from another province.

X Adjusted for power purchased from Quebec plants.

(xx) Includes 8 p.c. Dominion tax from September 13, 1939.

TABLEAU 5 - RECETTES, 1939.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
61,568,914	8,467,519	5,105,620	5,841,867	14,537,659	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
19,657,658	3,311,662	2,004,433	2,145,093	4,326,747	Pour éclairage domestique
8,786,851	1,588,036	1,429,624	1,635,703	3,120,909	Pour éclairage commercial
4,152,049	383,307	703,526	747,553	649,674	Pour force motrice (petite)
26,873,645	2,946,992	686,485	1,031,519	6,010,949	Pour force motrice (grosse)
2,118,711	237,522	281,552	281,999	429,280	Pour éclairage des rues
11,299,935	4,213,618	1,930,166	2,657,322	13,727,266	<u>RECETTES DES USINES COMMERCIALES</u>
1,818,988	182,887	148,599	81,554	3,789,532	Non-génératrices
9,480,947	4,030,731	1,781,567	2,575,768	9,937,734	Génératrices
9,463,931	3,946,201	-	1,862,305	9,757,201	Hydrauliques
17,016	84,530	1,781,567	713,463	180,533	A combustible
50,288,979	4,253,901	3,175,454	3,184,545	810,293	<u>RECETTES DES USINES MUNICIPALES</u>
13,376,076	866,647	668,495	1,190,185	478,982	Non-génératrices
36,912,903	3,387,254	2,506,959	1,994,360	331,311	Génératrices
36,825,729	3,152,025	-	37,394	282,810	Hydrauliques
87,174	235,229	2,506,959	1,956,966	48,501	A combustible
15,195,064	1,049,534	817,094	1,271,739	4,268,514	Recettes des usines non-génératrices
46,393,850	7,417,985	4,288,526	4,570,128	10,269,045	Recettes des usines génératrices
46,289,660	7,098,226	-	1,899,699	10,040,011	Recettes des usines hydrauliques
104,190	319,759	4,288,526	2,670,429	229,034	Recettes des usines à combustible
X 21.58	16.75	31.03	38.94	24.62	Moyenne de recettes par H.P. de machinerie primaire
X 21.27	15.78	31.03	34.52	22.69	Moyenne de recettes par H.P. de machinerie principale et
X 27.27	20.57	36.81	47.17	30.06	Moyenne de recettes par Kv.A. de capacité de dynamos
X 26.87	19.23	36.81	41.60	27.73	Moyenne de recettes par Kv.A. de capacité des dynamos,
.54	.48	3.05	2.32	.73	usines principales et auxiliaires (cents)
27.31	40.84	40.10	31.42	27.73	Moyenne de recettes par abonnés d'éclairage domestique
93.93	92.37	95.24	100.84	111.89	Moyenne de recettes par abonnés d'éclairage commercial
315.36	118.34	240.19	164.66	133.76	Moyenne de recettes par abonnés pour petite force motrice
7,628.06	987.93	5,240.34	2,947.20	8,279.54	Moyenne de recettes par abonnés pour grosse force motrice
1.43	1.03	4.87	5.08	2.85	Moyenne de recettes par Kw. heure - service domestique
1.60	1.97	5.73	4.68	2.91	Moyenne de recettes par Kw. heure - service commercial

/ Affecté par énergie achetée d'une autre province.

X Adjusté pour achats de courant des usines du Québec.

(xx) Comprend une taxe fédérale de 8 p.c. à compter du 13 Septembre 1939.



TABLE 6 - EXPENSES, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<b>TOTAL EXPENSES</b> .....	91,982,372	159,797	3,806,343	1,892,295	20,692,895
Per cent of total for Canada.....	100.00	0.17	4.14	2.06	22.49
Salaries and wages.....	28,223,376	73,951	1,210,037	599,399	6,747,465
Fuel.....	2,017,077	60,008	476,128	194,717	34,502
Taxes.....	11,859,878	24,684	451,816	199,379	6,782,641
Cost of power.....	49,882,041	1,154	1,668,362	898,800	7,128,287
<b>TOTAL FOR COMMERCIAL STATIONS</b> .....	42,471,534	138,458	2,856,464	1,048,553	20,069,132
Salaries and wages.....	13,791,708	64,773	839,460	312,863	6,474,005
Fuel.....	1,048,514	47,847	437,422	105,762	7,924
Taxes.....	10,887,815	24,684	437,759	198,991	6,769,990
Cost of power.....	16,743,497	1,154	1,140,823	430,937	6,817,213
Non-generating stations.....	8,916,117	1,164	1,576,073	666,348	90,866
Generating stations.....	33,555,417	137,294	1,279,391	382,205	19,978,266
Hydraulic stations.....	30,897,683	12,916	251,848	148,380	19,964,496
Fuel stations.....	2,657,734	124,378	1,027,543	233,825	13,770
<b>TOTAL FOR MUNICIPAL STATIONS</b> .....	49,510,838	21,339	950,879	843,742	623,763
Salaries and wages.....	14,431,668	9,178	370,577	286,536	273,460
Fuel.....	968,563	12,161	38,706	88,955	26,678
Taxes.....	972,063	-	14,057	388	12,651
Cost of power.....	33,138,544	-	527,539	467,863	311,074
Non-generating stations.....	31,496,118	-	584,003	418,196	412,189
Generating stations.....	18,014,720	21,339	366,876	425,546	211,594
Hydraulic stations.....	15,835,271	-	238,209	246,889	174,883
Fuel stations.....	2,179,449	21,339	128,667	178,657	36,711
<b>TOTAL EXPENSES FOR NON GENERATING STATIONS</b> .....	40,412,235	1,164	2,160,076	1,084,544	503,035
Salaries and wages.....	8,111,828	-	597,502	246,378	150,128
Fuel.....	36,588	-	35,376	-	-
Taxes.....	1,308,716	10	271,072	87,911	2,714
Cost of power.....	30,955,103	1,164	1,256,126	750,255	350,193
<b>TOTAL EXPENSES FOR GENERATING STATIONS</b> .....	51,570,137	158,633	1,646,287	807,751	20,189,860
Salaries and wages.....	20,111,548	73,951	612,535	353,021	6,597,337
Fuel.....	1,980,489	60,008	440,752	194,717	34,502
Taxes.....	10,551,162	24,674	180,744	111,468	6,779,927
Cost of power.....	18,926,938	-	412,236	148,545	6,778,084
Hydraulic stations.....	46,732,954	12,916	490,057	395,269	20,139,379
Fuel stations.....	4,837,183	145,717	1,166,210	412,482	50,481

† Includes only the four items listed.

TABEAU 6 - DEPENSES, 1939.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
48,729,644	2,628,531	2,621,038	2,481,834	8,969,995	<u>TOTAL DES DEPENSES</u>
52.96	2.86	2.85	2.70	9.75	Pourcentage du total pour le Canada
12,567,461	1,935,819	884,816	964,137	3,240,301	Salaires et gages
35,882	74,475	774,753	272,115	94,497	Combustible
1,650,368	213,890	214,544	496,424	1,827,132	Taxes
34,475,943	404,347	746,925	750,158	3,808,065	Achat d'énergie électrique
6,963,257	1,100,409	902,231	853,540	8,540,490	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,492,193	719,864	352,990	451,253	3,084,307	Salaires et gages
7,061	17,626	264,543	75,917	84,412	Combustible
1,091,424	122,235	163,655	253,330	1,825,747	Taxes
4,372,579	240,684	121,043	73,040	3,546,024	Achat d'énergie électrique
1,518,702	273,146	112,638	46,286	4,630,894	Usines non-génératrices
5,444,555	827,263	789,593	807,254	3,909,596	Usines génératrices
5,438,488	783,739	-	481,721	3,816,095	Usines hydrauliques
6,067	43,524	789,593	325,533	93,501	Usines à combustible
41,766,387	1,528,122	1,718,807	1,628,294	429,505	<u>TOTAL POUR LES USINES MUNICIPALES</u>
11,075,258	1,215,955	531,826	512,884	155,994	Salaires et gages
28,821	56,849	510,210	196,198	10,085	Combustible
558,944	91,655	50,889	242,094	1,385	Taxes
30,103,364	163,663	625,882	677,118	262,041	Achat d'énergie électrique
27,613,174	436,998	720,578	958,302	352,698	Usines non-génératrices
14,153,213	1,091,124	998,229	669,992	76,807	Usines génératrices
14,122,504	983,724	-	10,424	58,638	Usines hydrauliques
30,709	107,400	998,229	659,568	18,169	Usines à combustible
29,131,876	710,144	833,216	1,004,588	4,983,592	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
5,288,582	290,505	107,170	216,646	1,214,917	Salaires et gages
848	226	-	-	138	Combustible
171,683	15,066	53,997	76,232	630,031	Taxes
3,670,763	404,347	672,049	711,710	3,138,506	Achat d'énergie électrique
9,597,768	1,918,387	1,787,822	1,477,246	3,986,403	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
7,278,869	1,645,314	777,646	747,491	2,025,384	Salaires et gages
35,034	74,249	774,753	272,115	94,359	Combustible
1,478,685	198,824	160,547	419,192	1,197,101	Taxes
2,805,180	-	74,876	38,448	669,559	Achat d'énergie électrique
2,560,992	1,767,463	-	492,145	3,874,733	Usines hydrauliques
36,776	150,924	1,787,822	985,101	111,670	Usines à combustible

Ne comprend que les quatre item énumérés.

TABLE 7 - EMPLOYEES, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	18,848	73	1,128	527	4,629
Per cent of total for Canada.....	100.00	0.39	5.98	2.80	24.56
Officers, clerks, other salaried employees, etc.	7,376	35	374	252	1,611
Employees on wages.....	11,472	38	754	275	3,118
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	9,547	62	734	285	4,379
Officers, clerks, other salaried employees, etc.	3,196	25	212	115	1,402
Employees on wages.....	6,351	37	522	170	2,977
Non-generating.....	1,324	-	365	138	24
Generating.....	8,223	62	369	147	4,355
Hydraulic.....	7,510	13	239	66	4,350
Fuel.....	713	49	130	81	5
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	9,301	11	394	242	250
Officers, clerks, other salaried employees, etc.	4,180	10	162	137	109
Employees on wages.....	5,121	1	232	105	141
Non-generating.....	4,279	-	101	86	94
Generating.....	5,022	11	293	156	156
Hydraulic.....	4,371	-	252	98	145
Fuel.....	651	11	41	58	11
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	5,603	-	466	224	118
Officers, clerks, other salaried employees, etc.	2,850	-	211	123	64
Employees on wages.....	2,753	-	255	101	54
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	13,245	73	662	303	4,511
Officers, clerks, other salaried employees, etc.	4,526	35	163	129	1,447
Employees on wages.....	8,719	38	499	174	3,064
Hydraulic.....	11,881	13	491	164	4,495
Fuel.....	1,364	60	171	139	16



TABEAU 7 - EMPLOYES, 1939.

	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
	7,723	1,438	590	635	2,105	<u>TOTAL DU PERSONNEL OCCUPE</u>
	40.97	7.63	3.13	3.37	11.17	Pourcentage du total pour le Canada
	3,070	861	256	312	705	Administrateurs, directeurs, commis et tous employés des bureaux
	4,653	577	334	323	1,400	Ouvriers et journaliers
	1,027	488	268	302	2,002	<u>PERSONNEL DES USINES COMMERCIALES</u>
	291	191	119	175	666	Administrateurs, directeurs, commis et tous employés des bureaux
	736	297	149	127	1,336	Ouvriers et journaliers
	43	15	15	10	714	Non-génératrices
	984	473	253	292	1,288	Génératrices
	980	453	-	162	1,247	Hydrauliques
	4	20	253	130	41	Combustible
	6,696	950	322	333	103	<u>PERSONNEL DES USINES MUNICIPALES</u>
	2,779	670	137	137	39	Administrateurs, directeurs, commis et tous employés des bureaux
	3,917	280	185	196	64	Ouvriers et journaliers
	3,451	293	56	135	63	Non-génératrices
	3,245	657	266	198	40	Génératrices
	3,232	603	-	7	34	Hydrauliques
	13	54	266	191	6	Combustible
	3,494	308	71	145	777	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
	1,740	125	41	88	458	Administrateurs, directeurs, commis et tous employés des bureaux
	1,754	183	30	57	319	Ouvriers et journaliers
	4,229	1,130	519	490	1,328	<u>PERSONNEL DES USINES GENERATRICES</u>
	1,330	736	215	224	247	Administrateurs, directeurs, commis et tous employés des bureaux
	2,899	394	304	266	1,081	Ouvriers et journaliers
	4,212	1,056	-	169	1,281	Hydrauliques
	17	74	519	321	47	Combustible

TABLE 8 - NUMBER OF CUSTOMERS, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>NUMBER OF CUSTOMERS.....</b>	1,941,663	6,363	74,699	54,313	523,375
Per cent of total for Canada.....	100.00	0.33	3.85	2.80	26.95
Domestic service.....	1,623,672	5,067	62,034	46,485	434,825
Commercial light.....	262,590	1,170	10,368	6,570	74,643
Power (small).....	43,896	108	2,058	1,033	11,966
Power (large).....	9,267	8	163	186	1,197
Street lighting.....	2,238	10	76	39	744
<b>COMMERCIAL STATIONS.....</b>	889,418	5,181	47,079	23,877	483,221
Domestic service.....	725,103	4,167	39,051	19,382	399,811
Commercial light.....	137,334	938	6,597	3,747	70,487
Power (small).....	22,105	61	1,309	668	11,095
Power (large).....	3,588	7	78	60	1,117
Street lighting.....	1,288	8	44	20	711
Non-generating.....	193,387	135	35,138	15,462	4,270
Generating.....	696,031	5,046	11,941	8,415	478,951
Hydraulic.....	640,236	736	8,080	490	478,521
Fuel.....	55,795	4,310	3,861	7,925	430
<b>MUNICIPAL STATIONS.....</b>	1,052,245	1,182	27,620	30,436	40,154
Domestic service.....	898,569	900	22,983	27,103	35,014
Commercial light.....	125,256	232	3,771	2,823	4,156
Power (small).....	21,791	47	749	365	871
Power (large).....	5,679	1	85	126	80
Street lighting.....	950	2	32	19	33
Non-generating.....	750,209	-	18,716	13,914	20,293
Generating.....	302,036	1,182	8,904	16,522	19,861
Hydraulic.....	225,394	-	4,601	10,095	18,750
Fuel.....	76,642	1,182	4,303	6,427	1,111
<b>NON-GENERATING STATIONS.....</b>	943,596	135	53,854	29,376	24,563
Domestic service.....	793,286	99	44,714	24,686	21,210
Commercial light.....	126,153	35	7,412	4,039	2,755
Power (small).....	19,756	-	1,601	501	533
Power (large).....	3,722	-	88	126	19
Street lighting.....	679	1	39	24	48
<b>GENERATING STATIONS.....</b>	998,067	6,228	20,845	24,937	498,812
Hydraulic stations.....	865,630	736	12,681	10,585	497,271
Domestic service.....	729,666	626	10,606	9,661	412,489
Commercial light.....	110,716	106	1,740	770	71,514
Power (small).....	19,009	-	258	122	11,398
Power (large).....	5,090	1	52	24	1,175
Street lighting.....	1,149	3	25	8	695
Fuel Stations.....	132,437	5,492	8,164	14,352	1,541
Domestic service.....	100,720	4,342	6,714	12,138	1,126
Commercial light.....	25,721	1,029	1,216	1,761	374
Power (small).....	5,131	108	199	410	35
Power (large).....	455	7	23	36	3
Street lighting.....	410	6	12	7	3
<b>Average number of domestic service customers per 100 of population.....</b>	14.35	5.33	11.20	10.31	13.55

TABLEAU 8 - NOMBRE D'USAGERS, 1939.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
830,673	104,677	68,371	89,577	189,615	<u>NOMBRE D'USAGERS</u>
42.78	5.39	3.52	4.61	9.77	Pourcentage du total pour le Canada
719,871	81,091	49,980	68,267	156,052	Service domestique
93,523	17,192	15,011	16,221	27,892	Eclairage commercial
13,166	3,239	2,929	4,540	4,857	Force motrice (petite)
3,523	2,983	131	350	726	Force motrice (grosse)
590	172	320	199	88	Eclairage des rues
72,915	31,810	26,189	29,203	169,943	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
61,588	23,061	18,500	19,345	140,198	Service domestique
9,780	7,079	6,511	7,445	24,750	Eclairage commercial
1,224	383	971	2,164	4,230	Force motrice (petite)
261	1,268	37	67	693	Force motrice (grosse)
62	19	170	182	72	Eclairage des rues
5,285	7,438	2,832	2,160	120,667	Non-génératrices
67,630	24,372	23,357	27,043	49,276	Génératrices
67,254	22,746	-	15,171	47,238	Hydrauliques
376	1,626	23,357	11,872	2,038	Combustible
757,758	72,867	42,182	60,374	19,672	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
658,283	58,030	31,480	48,922	15,854	Service domestique
83,743	10,113	8,500	8,776	3,142	Eclairage commercial
11,942	2,856	1,958	2,376	627	Force motrice (petite)
3,262	1,715	94	283	33	Force motrice (grosse)
528	153	150	17	16	Eclairage des rues
620,840	17,967	15,063	28,959	14,457	Non-génératrices
136,918	54,900	27,119	31,415	5,215	Génératrices
135,733	50,972	-	763	4,480	Hydrauliques
1,185	3,928	27,119	30,652	735	Combustible
626,125	25,405	17,895	31,119	135,124	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
531,414	20,298	13,280	25,527	112,058	Service domestique
80,654	3,989	3,695	4,378	19,296	Eclairage commercial
10,984	824	919	1,141	3,253	Force motrice (petite)
2,759	150	46	58	476	Force motrice (grosse)
314	144	55	15	41	Eclairage des rues
204,548	79,272	50,476	58,458	54,491	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
202,987	73,718	-	15,934	51,718	Usines hydrauliques
187,173	56,773	-	10,382	41,956	Service domestique
12,654	12,009	-	3,984	7,939	Eclairage commercial
2,127	2,128	-	1,430	1,546	Force motrice (petite)
761	2,800	-	35	242	Force motrice (grosse)
272	8	-	103	35	Eclairage des rues
1,561	5,554	50,476	42,524	2,773	Usines à combustible
1,284	4,020	36,700	32,358	2,038	Service domestique
215	1,194	11,416	7,859	657	Eclairage commercial
55	287	2,010	1,969	58	Force motrice (petite)
3	33	85	257	8	Force motrice (grosse)
4	20	265	81	12	Eclairage des rues
19.19	11.15	5.27	8.65	20.06	Moyenne de consommateurs d'éclairage électrique par 100 habitants



TABLE 9 - POLE LINE MILEAGE, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	72,132	281	3,722	3,175	13,768
Per cent of total for Canada.....	100.00	0.39	5.16	4.40	19.08
Miles of steel towers.....	4,698	-	21	214	1,200
Miles of steel poles.....	231	-	1	-	168
Miles of wooden poles.....	64,697	279	3,692	2,957	11,671
Miles of concrete poles.....	556	-	-	1	-
Miles of underground and submarine cables.....	1,950	2	8	3	729
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	30,288	257	1,891	668	13,242
Non-generating.....	4,856	10	794	285	277
Generating.....	25,432	247	1,097	383	12,965
Hydraulic.....	22,702	53	896	180	12,953
Fuel.....	2,730	194	201	203	12
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	41,844	24	1,831	2,507	526
Non-generating.....	10,192	-	453	191	170
Generating.....	31,652	24	1,378	2,316	356
Hydraulic.....	27,856	-	1,072	1,242	336
Fuel.....	3,796	24	306	1,074	20
<u>TOTAL POLE LINE MILEAGE - NON GENERATING STATIONS</u> .....	15,048	10	1,247	476	447
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	57,084	271	2,475	2,699	13,321
Hydraulic.....	50,558	53	1,968	1,422	13,289
Fuel.....	6,526	218	507	1,277	32

TABLE 10 - AUXILIARY PLANT EQUIPMENT, 1939.

<u>TOTAL PRIMARY POWER</u> .....H.P.	194,139	165	12,285	2,950	36,272
Per cent of total for Canada.....	100.00	0.08	6.33	1.52	18.68
Steam reciprocating engines.....No.	31	1	9	3	-
Total capacity.....H.P.	12,491	75	3,913	1,025	-
Steam turbines.....No.	45	-	3	3	6
Total capacity.....H.P.	172,604	-	7,390	1,925	36,624
Gas and oil engines.....No.	48	2	7	-	2
Total capacity.....H.P.	9,044	90	982	-	48
<u>TOTAL SECONDARY POWER</u> .....Kv.A.	165,785	48	10,364	2,185	33,125
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> .....H.P.	130,375	165	11,590	2,950	25,548
Steam reciprocating engines.....No.	19	1	7	3	-
Total capacity.....H.P.	7,793	75	3,490	1,025	-
Steam turbines.....No.	36	-	3	3	6
Total capacity.....H.P.	115,740	-	7,390	1,925	25,500
Gas and oil engines.....No.	33	2	3	-	2
Total capacity.....H.P.	6,842	90	710	-	48
<u>TOTAL SECONDARY POWER</u> .....Kv.A.	109,783	48	9,803	2,185	23,125
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> .....H.P.	63,764	-	695	-	10,724
Steam reciprocating engines.....No.	12	-	2	-	-
Total capacity.....H.P.	4,698	-	423	-	-
Steam turbines.....No.	9	-	-	-	2
Total capacity.....H.P.	56,864	-	-	-	10,724
Gas and oil engines.....No.	15	-	4	-	-
Total capacity.....H.P.	2,202	-	272	-	-
<u>TOTAL SECONDARY POWER</u> .....Kv.A.	56,002	-	561	-	10,000

TABLEAU 9 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1939.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
33,622	3,997	3,911	4,156	5,500	<u>LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX</u>
46.63	5.54	5.42	5.76	7.62	Pourcentage du total pour tout le Canada
2,453	743	-	28	39	Milles de pylones d'acier
62	-	-	-	-	Milles de poteaux d'acier
29,566	3,220	3,886	4,060	5,366	Milles de poteaux de bois
555	-	-	-	-	Milles de poteaux de ciment
986	34	25	68	95	Milles de câbles souterrains et sous-marins
2,602	1,435	1,861	3,296	5,036	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
215	213	746	42	2,274	Non-génératrices
2,387	1,222	1,115	3,254	2,762	Génératrices
2,374	1,141	-	2,408	2,697	Hydrauliques
13	81	1,115	846	65	A combustible
31,020	2,562	2,050	860	464	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
6,809	1,655	186	421	307	Non-génératrices
24,211	907	1,864	439	157	Génératrices
24,182	850	-	35	139	Hydrauliques
29	57	1,864	404	18	A combustible
7,024	1,868	932	463	2,581	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
26,598	2,129	2,979	3,693	2,919	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GENERATRICES</u>
26,556	1,991	-	2,443	2,836	Hydrauliques
42	138	2,979	1,250	83	A combustible

TABLEAU 10 - OUTILLAGE AUXILIAIRE, 1939.

41,775	31,090	-	19,203	50,399	<u>TOTAL, FORCE MOTRICE PRIMAIRE.....H.P.</u>
21.52	16.02	-	9.89	25.96	Pourcentage du total pour tout le Canada
5	1	-	7	5	Machines à vapeur, à mouvement alternatif.....Nomb.
1,700	1,750	-	2,753	1,275	Capacité totale.....H.P.
5	7	-	4	15	Turbines à vapeur.....Nomb.
38,500	28,490	-	15,000	45,075	Capacité totale.....H.P.
4	7	-	9	17	Moteurs à gaz et à pétrole.....Nomb.
1,575	850	-	1,450	4,049	Capacité totale.....H.P.
33,947	28,711	-	16,847	40,558	<u>TOTAL, FORCE MOTRICE SECONDAIRE.....Kv.A.</u>
10,575	12,000	-	16,963	46,584	<u>USINES COMMERCIALES</u>
-	-	-	7	1	<u>TOTAL, FORCE MOTRICE PRIMAIRE.....H.P.</u>
-	-	-	2,753	450	Machines à vapeur, à mouvement alternatif.....Nomb.
3	3	-	4	14	Capacité totale.....H.P.
9,000	12,000	-	15,000	44,925	Turbines à vapeur.....Nomb.
4	-	-	7	15	Capacité totale.....H.P.
1,575	-	-	1,210	3,209	Moteurs à gaz et à pétrole.....Nomb.
7,657	11,250	-	16,662	39,053	Capacité totale.....H.P.
31,200	19,090	-	240	1,815	<u>TOTAL, FORCE MOTRICE SECONDAIRE.....Kv.A.</u>
5	1	-	-	4	<u>USINES MUNICIPALES</u>
1,700	1,750	-	-	825	<u>TOTAL, FORCE MOTRICE PRIMAIRE.....H.P.</u>
2	4	-	-	1	Machines à vapeur, à mouvement alternatif.....Nomb.
29,500	16,490	-	-	150	Capacité totale.....H.P.
-	7	-	2	2	Turbines à vapeur.....Nomb.
-	850	-	240	840	Capacité totale.....H.P.
26,290	17,461	-	185	1,505	Moteurs à gaz et à pétrole.....Nomb.
					Capacité totale.....H.P.
					<u>TOTAL, FORCE MOTRICE SECONDAIRE.....Kv.A.</u>

TABLE 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.	7,801,261	8,524	172,034	142,352	3,669,527
Per cent of total for Canada.....	100.00	0.11	2.21	1.82	47.03
Water wheels and turbines..... No.	626	7	56	16	266
Total capacity..... H.P.	7,240,983	392	95,045	105,760	3,630,505
Steam reciprocating engines..... No.	75	1	11	8	-
Total capacity..... H.P.	22,953	75	4,188	4,205	-
Steam turbines..... No.	115	4	16	9	9
Total capacity..... H.P.	492,512	6,680	70,903	32,005	36,374
Gas and oil engines..... No.	483	10	25	4	9
Total capacity..... H.P.	44,813	1,377	1,898	382	2,646
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	6,601,201	6,304	146,036	120,749	3,238,695
Per cent of total for Canada.....	100.00	0.10	2.21	1.83	49.07
Dynamos, A.C..... No.	1,251	19	99	35	279
Total capacity..... Kv.A.	6,595,123	6,304	145,646	119,899	3,238,669
Dynamos, D.C..... No.	228	-	7	2	2
Total capacity..... Kw.	6,078	-	390	850	26
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	5,516,007	7,289	87,179	112,912	3,625,573
Water wheels and turbines..... No.	542	7	18	10	240
Total capacity..... H.P.	5,226,483	392	14,240	92,900	3,599,795
Steam reciprocating engines..... No.	44	1	9	8	-
Total capacity..... H.P.	13,377	75	3,765	4,205	-
Steam turbines..... No.	70	4	13	6	7
Total capacity..... H.P.	250,020	6,680	68,245	15,625	25,650
Gas and oil engines..... No.	363	4	10	2	4
Total capacity..... H.P.	26,127	142	929	182	128
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	4,764,528	5,287	76,644	96,246	3,203,170
Dynamos, A.C..... No.	796	13	41	24	246
Total capacity..... Kv.A.	4,760,063	5,287	76,254	95,396	3,203,144
Dynamos, D.C..... No.	203	-	7	2	2
Total capacity..... Kw.	4,465	-	390	850	26
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	2,285,254	1,235	84,855	29,440	43,954
Water wheels and turbines..... No.	284	-	38	6	26
Total capacity..... H.P.	2,014,500	-	80,805	12,860	30,710
Steam reciprocating engines..... No.	31	-	2	-	-
Total capacity..... H.P.	9,576	-	423	-	-
Steam turbines..... No.	45	-	3	3	2
Total capacity..... H.P.	242,492	-	2,658	16,360	10,724
Gas and oil engines..... No.	120	6	15	2	5
Total capacity..... H.P.	18,686	1,235	969	200	2,520
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	1,836,673	1,017	69,392	24,503	35,525
Dynamos, A.C..... No.	455	6	58	11	33
Total capacity..... Kv.A.	1,835,060	1,017	69,392	24,503	35,525
Dynamos, D.C..... No.	25	-	-	-	-
Total capacity..... Kw.	1,613	-	-	-	-



TABLEAU 11 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1939.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,297,559	536,659	164,538	169,232	640,836	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H. P.
29.45	6.88	2.11	2.17	8.22	Pourcentage du total pour le Canada
347	43	-	11	80	Turbines et roues hydrauliques..... Nomb.
2,254,344	500,800	-	69,140	584,997	Capacité totale..... H. P.
14	6	2	23	10	Machines à vapeur, à mouvement alternatif..... Nomb.
2,175	2,403	1,150	7,013	1,744	Capacité totale..... H. P.
5	9	25	20	18	Turbines à vapeur..... Nomb.
38,500	29,740	142,300	88,095	47,915	Capacité totale..... H. P.
12	47	228	98	50	Moteurs à gaz et à pétrole..... Nomb.
2,540	3,716	21,088	4,984	6,180	Capacité totale..... H. P.
1,846,028	440,382	138,718	140,129	524,160	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
27.96	6.67	2.10	2.12	7.94	Pourcentage du total pour le Canada
372	99	122	80	146	Dynamos, C.A..... Nomb.
1,845,963	440,184	137,260	137,261	523,937	Capacité totale..... Kv.A.
3	7	127	68	12	Dynamos, C.D..... Nomb.
65	198	1,458	2,868	223	Capacité totale..... Kw.
540,764	359,255	56,937	97,452	628,646	<u>USINES COMMERCIALES</u>
164	23	-	9	71	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H. P.
529,949	345,800	-	68,180	575,227	Turbines et roues hydrauliques..... Nomb.
4	-	-	18	4	Capacité totale..... H. P.
165	-	-	4,303	864	Machines à vapeur, à mouvement alternatif..... Nomb.
3	3	11	6	17	Capacité totale..... H. P.
9,000	12,000	44,755	20,300	47,765	Turbines à vapeur..... Nomb.
6	25	173	94	45	Capacité totale..... H. P.
1,650	1,455	12,182	4,669	4,790	Moteurs à gaz et à pétrole..... Nomb.
					Capacité totale..... H. P.
453,669	290,517	46,758	76,936	515,301	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
173	47	69	58	125	Dynamos, C.A..... Nomb.
453,639	290,474	45,548	75,243	515,078	Capacité totale..... Kv.A.
2	4	109	65	12	Dynamos, C.D..... Nomb.
30	43	1,210	1,693	223	Capacité totale..... Kw.
756,795	177,404	107,601	71,780	12,190	<u>USINES MUNICIPALES</u>
183	20	-	2	9	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H. P.
724,395	155,000	-	960	9,770	Turbines et roues hydrauliques..... Nomb.
10	6	2	5	6	Capacité totale..... H. P.
2,010	2,403	1,150	2,710	680	Machines à vapeur, à mouvement alternatif..... Nomb.
2	6	14	14	1	Capacité totale..... H. P.
29,500	17,740	97,545	67,795	150	Turbines à vapeur..... Nomb.
6	22	55	4	5	Capacité totale..... H. P.
890	2,261	8,906	315	1,390	Moteurs à gaz et à pétrole..... Nomb.
					Capacité totale..... H. P.
392,359	149,865	91,960	63,193	8,859	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
199	52	53	22	21	Dynamos, C.A..... Nomb.
392,324	149,710	91,712	62,018	8,859	Capacité totale..... Kv.A.
1	3	18	3	-	Dynamos, C.D..... Nomb.
35	155	248	1,175	-	Capacité totale..... Kw.

TABLE 12 - MAIN PLANT EQUIPMENT, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER..... H.P.</b>	7,607,122	8,359	159,749	139,402	3,633,255
Per cent of total for Canada.....	100.00	0.11	2.10	1.83	47.76
Water wheels and turbines..... No.	826	7	56	16	266
Total capacity..... H.P.	7,240,983	392	95,045	105,760	3,630,505
Steam reciprocating engines..... No.	44	-	2	5	-
Total capacity..... H.P.	10,462	-	275	3,180	-
Steam turbines..... No.	70	4	13	6	1
Total capacity..... H.P.	319,908	6,680	63,513	30,080	150
Gas and oil engines..... No.	435	8	18	4	7
Total capacity..... H.P.	35,769	1,287	916	382	2,600
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	6,435,416	6,256	135,672	118,564	3,250,570
Per cent of total for Canada.....	100.00	0.10	2.11	1.84	49.80
Dynamos, A.C..... No.	1,138	18	83	29	271
Total capacity..... Kv.A.	6,430,738	6,256	135,582	117,714	3,205,544
Dynamos, D.C..... No.	225	-	6	2	2
Total capacity..... Kw.	4,678	-	90	850	26
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER..... H.P.</b>	5,385,632	7,124	75,589	109,962	3,600,025
Per cent of total for Canada.....	100.00	0.13	1.40	2.04	66.84
Water wheels and turbines..... No.	542	7	18	10	240
Total capacity..... H.P.	5,226,483	392	14,240	92,900	3,599,795
Steam reciprocating engines..... No.	25	-	2	5	-
Total capacity..... H.P.	5,584	-	275	3,180	-
Steam turbines..... No.	34	4	10	3	1
Total capacity..... H.P.	134,280	6,680	60,855	13,700	150
Gas and oil engines..... No.	330	2	7	2	2
Total capacity..... H.P.	19,285	52	219	182	80
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	4,654,745	5,239	66,841	94,061	3,180,045
Per cent of total for Canada.....	100.00	0.11	1.44	2.02	68.32
Dynamos, A.C..... No.	719	12	31	18	240
Total capacity..... Kv.A.	4,651,680	5,239	66,751	93,211	3,180,019
Dynamos, D.C..... No.	200	-	6	2	2
Total capacity..... Kw.	3,065	-	90	850	26
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER..... H.P.</b>	2,221,490	1,235	84,160	29,440	33,230
Per cent of total for Canada.....	100.00	0.06	3.79	1.32	1.49
Water wheels and turbines..... No.	284	-	38	6	26
Total capacity..... H.P.	2,014,500	-	80,805	12,860	30,710
Steam reciprocating engines..... No.	19	-	-	-	-
Total capacity..... H.P.	4,878	-	-	-	-
Steam turbines..... No.	36	-	3	3	-
Total capacity..... H.P.	185,625	-	2,658	16,360	-
Gas and oil engines..... No.	105	6	11	2	5
Total capacity..... H.P.	16,484	1,235	600	200	2,520
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	1,780,671	1,017	68,831	24,503	25,525
Per cent of total for Canada.....	100.00	0.06	3.87	1.38	1.43
Dynamos, A.C..... No.	419	6	52	11	31
Total capacity..... Kv.A.	1,779,058	1,017	68,831	24,503	25,525
Dynamos, D.C..... No.	25	-	-	-	-
Total capacity..... Kw.	1,613	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	6,124,265	359	79,172	91,238	3,203,281
Per cent of total for Canada.....	100.00	0.01	1.29	1.49	52.30
Dynamos, A.C..... No.	820	6	56	15	263
Total capacity..... Kv.A.	6,123,969	359	79,172	91,038	3,203,255
Dynamos, D.C..... No.	5	-	-	1	2
Total capacity..... Kw.	296	-	-	200	26
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	311,151	5,897	56,500	27,326	2,289
Per cent of total for Canada.....	100.00	1.90	18.16	8.78	0.74
Dynamos, A.C..... No.	318	12	27	14	8
Total capacity..... Kv.A.	306,769	5,897	56,410	26,676	2,289
Dynamos, D.C..... No.	220	-	6	1	-
Total capacity..... Kw.	4,382	-	90	650	-

X - Capacity of one hydraulic station in Saskatchewan included in Manitoba.



TABLEAU 12 - OUTILLAGE DES USINES PRINCIPALES, 1939.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
255,784 29.66 347 254,344 9 475 - - 8 965	505,569 6.66 43 500,800 5 653 2 1,250 40 2,866	164,538 2.16 - - 2 1,150 25 142,300 228 21,088	150,029 1.97 11 69,140 16 4,260 16 73,095 89 3,534	590,437 7.76 80 584,997 5 469 3 2,840 33 2,131	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P. Pourcentage du total pour le Canada..... Roues hydrauliques et turbines.....Nomb. Capacité totale.....H.P. Machines à vapeur, à mouvement alternatif.....Nomb. Capacité totale.....H.P. Turbines à vapeur.....Nomb. Capacité totale.....H.P. Moteurs à gaz et à pétrole.....Nomb. Capacité totale.....H.P.
812,081 28.16 359 812,016 3 65	411,671 6.40 84 411,473 7 198	138,718 2.16 122 137,260 127 1,458	123,282 1.92 62 121,514 66 1,768	483,602 7.51 110 483,379 12 223	<u>CAPACITE DES DYNAMOS</u> .....Kv.A. Pourcentage du total pour le Canada..... Dynamos, C.A.....Nomb. Capacité totale.....Kv.A. Dynamos, C.D.....Nomb. Capacité totale.....Kw.
530,189 9.86 164 529,949 4 165 - 2 75	347,255 6.45 23 345,800 - - - 25 1,455	56,937 1.06 - - - - 11 44,755 173 12,182	78,489 1.46 9 68,180 11 1,550 2 5,300 87 3,469	580,062 10.77 71 575,227 3 414 3 2,840 30 1,581	<u>USINES COMMERCIALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P. Pourcentage du total pour le Canada..... Turbines et roues hydrauliques.....Nomb. Capacité totale.....H.P. Machines à vapeur, à mouvement alternatif.....Nomb. Capacité totale.....H.P. Turbines à vapeur.....Nomb. Capacité totale.....H.P. Moteurs à gaz et à pétrole.....Nomb. Capacité totale.....H.P.
446,012 9.58 167 445,982 2 30	279,267 6.00 44 279,224 4 43	46,758 1.01 69 45,548 109 1,210	60,274 1.29 42 59,681 63 593	476,248 10.23 96 476,025 12 223	<u>CAPACITE DES DYNAMOS</u> .....Kv.A. Pourcentage du total pour le Canada..... Dynamos, C.A.....Nomb. Capacité totale.....Kv.A. Dynamos, C.D.....Nomb. Capacité totale.....Kw.
725,595 77.68 183 724,395 5 310 - - 6 890	158,314 7.13 20 155,000 5 653 2 1,250 15 1,411	107,601 4.84 - 2 2 1,150 14 97,545 55 8,906	71,640 3.22 2 960 5 2,710 14 67,795 2 75	10,375 0.47 9 9,770 2 55 - - 3 550	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P. Pourcentage du total pour le Canada..... Turbines et roues hydrauliques.....Nomb. Capacité totale.....H.P. Machines à vapeur, à mouvement alternatif.....Nomb. Capacité totale.....H.P. Turbines à vapeur.....Nomb. Capacité totale.....H.P. Moteurs à gaz et à pétrole.....Nomb. Capacité totale.....H.P.
66,069 76.72 192 66,034 1 35	132,404 7.43 40 132,249 3 155	91,960 5.16 53 91,712 18 248	63,008 3.54 20 61,833 3 1,175	7,354 0.41 14 7,354 - -	<u>CAPACITE DES DYNAMOS</u> .....Kv.A. Pourcentage du total pour le Canada..... Dynamos, C.A.....Nomb. Capacité totale.....Kv.A. Dynamos, C.D.....Nomb. Capacité totale.....Kw.
10,984 29.57 345 10,984 - -	407,600 6.66 43 407,600 - -	- - - - -	52,450 0.86 11 52,450 - -	479,181 7.82 81 479,111 2 70	<u>USINES HYDRAULIQUES</u> <u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A. Pourcentage du total pour le Canada..... Dynamos, C.A.....Nomb. Capacité totale.....Kv.A. Dynamos, C.D.....Nomb. Capacité totale.....Kw.
1,097 0.35 14 1,032 3 65	4,071 1.31 41 3,873 7 198	138,718 44.58 122 137,260 127 1,458	70,832 22.76 51 69,064 66 1,768	4,421 1.42 29 4,268 10 153	<u>USINES A COMBUSTIBLE</u> <u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A. Pourcentage du total pour le Canada..... Dynamos, C.A.....Nomb. Capacité totale.....Kv.A. Dynamos, C.D.....Nomb. Capacité totale.....Kw.

\* Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.



TABLE 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>PRIMARY POWER</b>						
Water wheels and turbines..... H.P.	7,607,122	8,359	159,749	139,402	3,633,255	2,255,784
..... No.	826	7	56	16	266	347
Total H.P.	7,240,983	392	95,045	105,760	3,630,505	2,254,344
..... No.	137	7	21	2	29	53
Under 500 H.P. .... Total H.P.	27,998	392	4,885	710	5,561	11,454
..... No.	216	-	18	3	62	122
500 - 2,000 H.P. .... Total H.P.	234,739	-	19,770	2,550	65,694	133,355
..... No.	135	-	11	6	33	66
2,000 - 5,000 H.P. .... Total H.P.	397,821	-	36,890	17,500	94,550	188,935
..... No.	109	-	6	1	33	32
5,000 - 10,000 H.P. .... Total H.P.	720,225	-	33,500	5,000	233,400	207,500
..... No.	84	-	-	-	28	44
10,000 - 15,000 H.P. .... Total H.P.	981,300	-	-	-	301,900	528,600
..... No.	51	-	-	2	17	11
15,000 - 25,000 H.P. .... Total H.P.	963,000	-	-	80,000	352,500	182,500
..... No.	94	-	-	-	64	19
25,000 H.P. and up. .... Total H.P.	3,915,900	-	-	-	2,576,900	1,002,000
..... No.	44	-	2	5	-	9
Steam reciprocating engines. .... Total H.P.	10,462	-	275	3,150	-	475
..... No.	37	-	2	2	-	9
Under 500 H. P. .... Total H.P.	4,502	-	275	280	-	475
..... No.	7	-	-	3	-	-
500 H.P. and up. .... Total H.P.	5,960	-	-	2,900	-	-
..... No.	70	4	13	6	1	-
Steam turbines. .... Total H.P.	319,908	6,680	63,513	30,080	150	-
..... No.	6	-	1	-	1	-
Under 500 H.P. .... Total H.P.	1,514	-	402	-	150	-
..... No.	19	3	2	1	-	-
500 - 2,000 H.P. .... Total H.P.	21,199	4,180	2,256	700	-	-
..... No.	23	1	4	3	-	-
2,000 - 5,000 H.P. .... Total H.P.	69,866	2,500	12,080	11,000	-	-
..... No.	22	-	6	2	-	-
5,000 - 10,000 H.P. and up. .... Total H.P.	227,329	-	48,775	18,380	-	-
..... No.	435	6	18	4	7	8
Gas and oil engines. .... Total H.P.	35,769	1,287	916	382	2,600	965
<b>SECONDARY POWER</b>						
Dynamos, A.C. and D.C. .... No.	1,363	18	89	31	273	362
Total Kv.A.	6,435,416	6,256	135,672	118,564	3,205,570	1,812,081
Dynamos, A.C. .... No.	1,138	18	83	29	271	359
Total Kv.A.	6,430,738	6,256	135,582	117,714	3,205,544	1,812,016
Under 50 Kv.A. .... No.	105	5	9	-	6	7
Total Kv.A.	3,063	136	269	-	223	198
50 - 200 Kv.A. .... No.	171	7	15	7	13	34
Total Kv.A.	18,592	678	1,635	804	1,408	4,035
200 - 500 Kv.A. .... No.	134	2	15	1	23	42
Total Kv.A.	41,868	612	4,663	375	8,066	13,171
500 - 1,000 Kv.A. .... No.	136	1	9	4	33	66
Total Kv.A.	97,333	625	6,445	2,750	27,600	7,520
1,000 - 5,000 Kv.A. .... No.	271	3	27	11	53	116
Total Kv.A.	624,760	4,205	70,395	28,475	112,295	242,960
5,000 - 10,000 Kv.A. .... No.	113	-	8	2	25	47
Total Kv.A.	791,797	-	52,175	15,310	166,020	353,592
10,000 - 15,000 Kv.A. .... No.	72	-	-	-	32	24
Total Kv.A.	779,825	-	-	-	177,660	257,040
15,000 - 25,000 Kv.A. .... No.	58	-	-	4	20	8
Total Kv.A.	1,099,000	-	-	70,000	409,250	154,000
25,000 Kv.A. and up. .... No.	78	-	-	-	61	15
Total Kv.A.	2,974,500	-	-	-	2,147,000	739,500
Dynamos, D.C. .... No.	225	-	6	2	2	3
Total Kw.	4,678	-	90	850	26	65
Under 50 Kw. .... No.	219	-	6	-	2	3
Total Kw.	2,553	-	90	-	26	65
50 - 200 Kw. .... No.	2	-	-	-	-	-
Total Kw.	125	-	-	-	-	-
200 - 500 Kw. .... No.	2	-	-	1	-	-
Total Kw.	600	-	-	200	-	-
500 Kw. and up. .... No.	2	-	-	1	-	-
Total Kw.	1,400	-	-	650	-	-

TABLEAU 13 - OUTILLAGE CLASSIFIÉ DES USINES PRINCIPALES, 1939.

Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal	
505,569	164,538	150,029	590,437	5,385,632	2,221,490	<u>FORCE MOTRICE PRIMAIRE</u> ..... H.P.
43	-	11	80	542	284	<u>Turbines et roues hydrauliques</u> ..... Nomb.
500,800	-	69,140	584,997	5,226,483	2,014,500	Total H.P.
-	-	3	22	90	47	Moins de 500 H.P. .... Nomb.
-	-	1,140	3,866	15,693	12,305	Total H.P.
-	-	-	11	118	98	500 - 2,000 H.P. .... Nomb.
4	-	-	13,370	122,994	111,745	Total H.P.
12,800	-	8,000	13	91	44	2,000 - 5,000 H.P. .... Nomb.
21	-	4	12	72	37	Total H.P.
130,000	-	24,000	86,825	492,525	227,700	5,000 - 10,000 H.P. .... Nomb.
7	-	-	5	56	28	Total H.P.
92,000	-	-	58,800	628,600	352,700	10,000 - 15,000 H.P. .... Nomb.
5	-	2	12	40	11	Total H.P.
98,000	-	36,000	214,000	780,500	182,500	15,000 - 25,000 H.P. .... Nomb.
6	-	-	5	75	19	Total H.P.
168,000	-	-	169,000	2,913,900	1,002,000	25,000 et plus H.P. .... Nomb.
5	2	13	5	25	19	Total H.P.
653	1,150	4,260	469	5,584	4,878	<u>Machines à vapeur, à mouvement alternatif</u> ..... Nomb.
5	1	13	5	22	15	Moins et 500 H.P. .... Nomb.
653	400	1,950	469	2,684	1,818	Total H.P.
-	1	3	-	3	4	500 H.P. et plus..... Nomb.
-	750	2,310	-	2,900	3,060	Total H.P.
2	25	16	3	34	36	<u>Turbines à vapeur</u> ..... Nomb.
1,250	142,300	73,095	2,840	134,280	160,628	Total H.P.
1	1	2	-	1	5	Moins et 500 H.P. .... Nomb.
400	267	295	-	150	1,364	Total H.P.
1	7	2	3	-	8	500 - 2,000 H.P. .... Nomb.
850	8,373	2,000	2,840	12,923	8,276	Total H.P.
-	8	7	-	12	11	2,000 - 5,000 H.P. .... Nomb.
-	24,286	20,000	-	34,166	35,700	Total H.P.
-	9	5	-	10	12	5,000 - 10,000 H.P. .... Nomb.
-	109,374	50,800	-	87,041	140,288	Total H.P.
40	228	29	33	330	105	<u>Moteurs à gaz et à pétrole</u> ..... Nomb.
2,866	21,088	3,534	1,131	19,285	16,438	Total H.P.
91	249	128	122	919	444	<u>FORCE MOTRICE SECONDAIRE</u>
111,671	138,718	123,282	483,602	4,654,745	1,780,671	<u>Dynamos, C.A. et C.D.</u> ..... Nomb.
84	122	62	110	719	419	Total Kv.A.
111,473	137,260	121,514	483,379	4,651,680	1,779,058	<u>Dynamos, C.A.</u> ..... Nomb.
22	27	13	16	72	33	Total Kv.A.
601	856	322	458	2,139	924	Moins et 50 Kv.A. .... Nomb.
14	38	19	24	111	60	Total Kv.A.
1,271	4,211	2,104	2,446	11,550	7,062	50 - 200 Kv.A. .... Nomb.
4	29	7	11	64	70	Total Kv.A.
1,200	8,502	2,125	3,112	19,461	22,407	200 - 500 Kv.A. .... Nomb.
1	6	3	8	76	60	Total Kv.A.
781	3,886	2,088	5,638	53,545	43,788	500 - 1,000 Kv.A. .... Nomb.
14	14	14	19	164	107	Total Kv.A.
46,350	32,305	42,375	45,400	378,405	246,355	1,000 - 5,000 Kv.A. .... Nomb.
11	4	2	14	69	44	Total Kv.A.
70,750	25,000	11,250	97,700	481,625	310,172	5,000 - 10,000 Kv.A. .... Nomb.
7	2	1	6	53	19	Total Kv.A.
76,000	25,000	12,500	75,625	581,225	198,600	10,000 - 15,000 Kv.A. .... Nomb.
11	2	3	10	47	11	Total Kv.A.
14,500	37,500	48,750	165,000	888,750	210,250	15,000 - 25,000 Kv.A. .... Nomb.
-	-	-	2	63	15	Total Kv.A.
-	-	-	88,000	2,235,000	739,500	25,000 Kv.A. et plus..... Nomb.
7	127	66	12	200	25	Total Kv.A.
198	1,458	1,768	223	3,065	1,613	<u>Dynamos, C.D.</u> ..... Nomb.
5	127	64	12	198	21	Total Kw.
73	1,458	618	223	2,215	338	Moins de 50 Kw. .... Nomb.
2	-	-	-	-	2	Total Kw.
125	-	-	-	-	125	50 - 200 Kw. .... Nomb.
-	-	1	-	1	1	Total Kw.
-	-	400	-	200	400	200 - 500 Kw. .... Nomb.
-	-	1	-	1	1	Total Kw.
-	-	750	-	650	750	500 Kw. et plus..... Nomb.
						Total Kw.



TABLE 14 - ELECTRIC ENERGY GENERATED, 1939.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>ALL STATIONS</b>					
Total kilowatt hours generated..... (thousands)...	28,338,030	7,747	436,269	459,546	15,234,384
Per cent of total for Canada.....	100.00	.03	1.54	1.62	53.76
Kilowatt hours generated by non-generating stations..... (thousands)...	5,228	-	5,138	-	-
Kilowatt hours generated by generating stns.... (thousands)...	28,332,802	7,747	431,131	459,546	15,234,384
Kv.A. capacity of generating stations.....	6,570,284	6,304	135,847	118,564	3,228,695
Ratio of output to maximum capacity..... p.c....	49.81	14.03	36.23	44.25	54.55
Average kilowatt hours per Kv.A.....	4,312	1,229	3,174	3,876	4,718
<b>GENERATING STATIONS</b>					
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated..... (thousands)...	21,285,710	6,594	176,942	400,254	15,162,693
Kv.A. capacity.....	4,750,076	5,287	66,991	94,061	3,203,170
Ratio of output to maximum capacity..... p.c....	51.71	14.24	30.15	48.57	54.73
Average kilowatt hours per Kv.A.....	4,481	1,247	2,641	4,255	4,734
<b>Hydraulic Stations</b>					
Kilowatt hours generated..... (thousands)...	21,046,059	230	44,759	375,308	15,162,463
Kv.A. capacity.....	4,617,314	407	13,076	80,975	3,202,981
Ratio of output to maximum capacity..... p.c....	52.62	6.45	39.08	52.91	54.73
Average kilowatt hours per Kv.A.....	4,558	565	3,423	4,635	4,734
<b>Fuel Stations</b>					
Kilowatt hours generated..... (thousands)...	239,651	6,364	132,183	24,946	230
Kv.A. capacity.....	132,762	4,880	53,915	13,086	189
Ratio of output to maximum capacity..... p.c....	20.61	14.89	28.00	21.76	13.95
Average kilowatt hours per Kv.A.....	1,805	1,304	2,452	1,906	1,217
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated..... (thousands)...	7,047,092	1,153	254,189	58,240	71,691
Kv.A. capacity.....	1,820,208	1,017	68,856	24,500	25,525
Ratio of output to maximum capacity..... p.c....	44.82	12.95	42.15	21.83	32.07
Average kilowatt hours per Kv.A.....	3,872	1,134	3,692	2,410	2,809
<b>Hydraulic Stations</b>					
Kilowatt hours generated..... (thousands)...	6,790,632	-	249,522	28,002	67,159
Kv.A. capacity.....	1,641,819	-	66,271	10,263	23,425
Ratio of output to maximum capacity..... p.c....	47.21	-	42.98	29.82	32.73
Average kilowatt hours per Kv.A.....	4,136	-	3,765	2,612	2,867
<b>Fuel Stations</b>					
Kilowatt hours generated..... (thousands)...	256,460	1,153	4,667	32,490	4,532
Kv.A. capacity.....	178,389	1,017	2,585	14,240	2,100
Ratio of output to maximum capacity..... p.c....	19.13	12.95	20.61	26.05	24.63
Average kilowatt hours per Kv.A.....	1,438	1,134	1,805	2,282	2,158
<b>TOTAL HYDRAULIC STATIONS</b>					
Kilowatt hours generated..... (thousands)...	27,836,691	230	294,281	402,110	15,229,622
Kv.A. capacity.....	6,259,133	407	79,347	91,238	3,226,406
Ratio of output to maximum capacity..... p.c....	51.19	6.45	42.34	50.31	54.57
Average kilowatt hours per Kv.A.....	4,447	565	3,709	4,407	4,720
Kilowatt hours generated by water power..... (thousands)...	27,829,017	170	294,260	402,068	15,229,622
Kilowatt hours generated by auxiliary plants..... (thousands)...	7,674	60	21	42	-
<b>TOTAL FUEL STATIONS</b>					
Kilowatt hours generated..... (thousands)...	496,111	7,517	136,850	57,436	4,762
Kv.A. capacity.....	311,151	5,897	56,500	27,326	2,289
Ratio of output to maximum capacity..... p.c....	19.82	14.55	27.65	24.00	23.76
Average kilowatt hours per Kv.A.....	1,594	1,275	2,422	2,102	2,080
<b>CONSUMPTION OF ELECTRIC ENERGY (THOUSANDS OF KILOWATT HOURS)</b>					
Total kilowatt hours generated.....	28,338,030	7,747	436,269	459,546	15,234,384
Kilowatt hours imported from the United States.....	688	-	-	7	222
Kilowatt hours imported from other provinces.....	-	-	-	6,063	108,450
Kilowatt hours exported to the United States.....	1,908,756	-	-	20,277	451
Kilowatt hours exported to other provinces.....	-	-	-	-	3,462,158
<b>KILOWATT HOURS FOR CONSUMPTION IN CANADA</b>					
Domestic service.....	26,429,940	7,747	436,269	445,339	11,890,447
Commercial light.....	2,310,891	2,908	39,084	28,989	311,420
Small power.....	1,109,008	1,913	21,172	17,476	270,928
Large power.....	535,647	608	13,717	6,050	135,274
Street lighting.....	19,260,077	864	312,581	371,164	10,294,197
Free service (other than street lighting).....	204,088	339	5,172	4,842	39,918
Losses.....	17,136	11	58	294	12,464
	2,993,093	1,104	44,485	18,524	826,246

Excludes exports to other provinces and/or to the United States.



TABEAU 14 - ENERGIE ELECTRIQUE GENERALEE, 1939.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
8,007,127 28.26	1,775,257 6.26	167,242 .69	251,806 .89	1,998,652 7.06	<u>TOUTES USINES</u> Total kw. heure générés.....(milliers). Pourcentage du total pour le Canada.....
77	8	-	-	5	Kilowatt-heure générés par les usines non-génératrices.....(milliers).
8,007,050	1,775,249	167,242	251,806	1,998,647	Kilowatt-heure générés par les usines génératrices "
1,843,269	436,671	138,718	139,944	522,272	Capacité des usines génératrices en Kv.A.....
49.59	47.60	14.65	23.37	43.69	Proportion de la production à la capacité maximum..... p.c.
4,344	4,065	1,206	1,799	3,827	Moyenne de kilowatt-heure par Kv.A.....
					<u>USINES GENERATRICES</u> <u>USINES COMMERCIALES</u> <u>TOTAL</u>
2,165,189	1,180,683	53,251	156,347	1,983,757	Kilowatt-heure générés.....(milliers).
452,200	290,517	46,758	76,936	514,156	Capacité en Kv.A.....
54.66	48.20	13.00	23.20	44.04	Proportion de la production à la capacité maximum..... p.c.
4,788	4,064	1,139	2,032	3,868	Moyenne de kilowatt-heure par Kv.A.....
					<u>Usines Hydrauliques</u>
2,165,008	1,179,647	-	143,321	1,975,323	Kilowatt-heure générés.....(milliers).
452,025	289,350	-	68,262	510,238	Capacité en Kv.A.....
54.68	48.36	-	23.97	44.19	Proportion de production à la capacité maximum..... p.c.
4,790	4,077	-	2,100	3,871	Moyenne de kilowatt-heure par Kv.A.....
					<u>Usines à combustible</u>
181	1,036	53,251	13,028	8,434	Kilowatt-heure générés.....(milliers).
175	1,167	46,758	8,674	3,918	Capacité en Kv.A.....
11.80	10.14	13.00	17.15	24.58	Proportion de production à la capacité maximum..... p.c.
1,034	888	1,139	1,502	2,153	Moyenne de kilowatt-heure par Kv.A.....
					<u>USINES MUNICIPALES</u> <u>TOTAL</u>
5,841,861	594,566	113,991	95,459	14,890	Kilowatt-heure générés.....(milliers).
1,391,069	146,154	91,960	63,008	8,116	Capacité en Kv.A.....
47.95	46.44	15.58	23.67	20.95	Proportion de production à la capacité maximum..... p.c.
4,200	4,068	1,240	1,515	1,835	Moyenne de kilowatt-heure par Kv.A.....
					<u>Usines Hydrauliques</u>
5,840,636	590,672	-	1,568	14,885	Kilowatt-heure générés.....(milliers).
1,390,147	143,250	-	850	7,613	Capacité en Kv.A.....
47.96	47.07	-	21.32	24.37	Proportion de production à la capacité maximum..... p.c.
4,201	4,123	-	1,868	1,832	Moyenne de kilowatt-heure par Kv.A.....
					<u>Usines à combustible</u>
1,225	3,894	113,991	93,871	637	Kilowatt-heure générés.....(milliers).
922	2,904	91,960	62,158	503	Capacité en Kv.A.....
15.17	15.31	15.58	23.71	14.45	Proportion de production à la capacité maximum..... p.c.
1,329	1,341	1,240	1,510	1,266	Moyenne de kilowatt-heure par Kv.A.....
					<u>TOUTES USINES HYDRAULIQUES</u>
1,005,644	1,770,319	-	144,909	1,989,576	Kilowatt-heure générés.....(milliers).
842,172	432,600	-	69,344	517,851	Capacité en Kv.A.....
49.61	47.92	-	23.94	43.66	Proportion de production à la capacité maximum..... p.c.
4,346	4,092	-	2,097	3,842	Moyenne de kilowatt-heure par Kv.A.....
1,005,132	1,770,207	-	144,708	1,982,850	Kw.-heure générés par force motrice hydraulique ... (milliers).
512	112	-	201	6,726	Kw.-heure générés par les usines auxiliaires..... (milliers).
					<u>TOUTES USINES A COMBUSTIBLE</u>
1,406	4,930	167,242	106,897	9,071	Kilowatt-heure générés.....(milliers).
1,097	4,071	138,718	70,832	4,421	Capacité en Kv.A.....
14.62	13.82	14.65	22.65	23.42	Proportion de production à la capacité maximum..... p.c.
1,282	1,211	1,206	1,509	2,052	Moyenne de kilowatt-heure par Kv.A.....
					<u>CONSUMMATION D'ENERGIE ELECTRIQUE (EN MILLIERS DE KW.H.)</u>
8,007,127	1,775,257	167,242	251,806	1,998,652	Total de kilowatt-heure générés.....
-	267	33	137	-	Kilowatt-heure importés des Etats-Unis.....
446,095	-	-	2,304	-	Kilowatt-heure importés d'autres provinces.....
886,642	874	-	-	512	Kilowatt-heure exportés aux Etats-Unis.....
108,450	-	-	-	2,304	Kilowatt-heure exportés à d'autres provinces.....
					<u>KILOWATT-HEURE CONSOMMES AU CANADA.....</u>
458,130	1,774,650	167,275	254,247	1,995,836	Service domestique.....
374,325	320,827	41,198	42,210	151,930	Eclairage commercial.....
549,713	80,571	24,956	34,968	107,311	Petite force motrice.....
251,480	51,583	22,713	32,086	22,136	Grosse force motrice.....
610,396	1,101,771	52,233	96,904	1,419,968	Eclairage des rues.....
98,866	19,029	7,760	8,626	19,546	Service gratuit (autre que l'éclairage des rues).....
709	69	9	1,473	2,049	Pertes.....
572,652	200,800	18,406	37,980	272,896	

Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.

TABLE 15 - FUEL, 1939.

Provinces	Bituminous Coal Charbon bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA.....	311,684	1,117,327	5,179	24,324
Prince Edward Island.....	8,087	44,614	-	-
Nova Scotia.....	101,748	394,083	-	-
New Brunswick.....	47,224	185,818	1,558	5,466
Quebec.....	-	-	908	5,962
Ontario.....	50	140	2,713	12,896
Manitoba.....	4,090	17,255	-	-
Saskatchewan.....	108,168	416,420	-	-
Alberta.....	38,086	47,197	-	-
British Columbia and Yukon.....	4,231	11,800	-	-
	Fuel Oil and Diesel Oil Mazout et huile diesel		Wood Bois	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Gal. Gal.	\$	Cords Cordes	\$
CANADA.....	8,106,279	555,482	7,875	23,244
Prince Edward Island.....	136,626	14,594	200	800
Nova Scotia.....	121,526	12,462	-	-
New Brunswick.....	33,799	3,433	-	-
Quebec.....	348,277	28,529	-	-
Ontario.....	240,753	22,019	500	700
Manitoba.....	276,930	36,683	4,946	16,524
Saskatchewan.....	5,619,271	323,500	59	108
Alberta.....	279,208	42,386	2,170	5,112
British Columbia and Yukon.....	1,049,889	71,876	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial.  
Cords = 128 cu. feet.

TABLEAU 15 - COMBUSTIBLE, 1939.

Lignite Coal Charbon Lignite		Gasolene Gazoline		Kerosene Kérosène	
Canadian - Canadien		Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Quantity Quantité	Value Valeur				
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
132,350	198,837	25,991	5,456	328	89
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	36	11	-	-
-	-	671	127	-	-
373	1,280	629	195	-	-
30,840	31,714	15,478	2,945	236	66
101,137	165,843	7,661	1,727	90	21
-	-	1,516	451	2	2
Manufactured Gas Gaz fabriqué		Natural Gas Gaz naturel		Other Fuel Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu. ft. 1,000 pds. cu.	\$	1,000 cu. ft. 1,000 pds. cu.	\$	\$	\$
5,580,000	66,960	327,096	9,829	15,529	2,017,077
-	-	-	-	-	60,008
5,580,000	66,960	-	-	2,623	476,128
-	-	-	-	-	194,717
-	-	-	-	-	34,502
-	-	-	-	-	35,882
-	-	-	-	2,538	74,475
-	-	-	-	-	774,753
-	-	327,096	9,829	-	272,115
-	-	-	-	10,368	94,497

Note: Tonne = 2,000 livres.  
Gallon = Impérial.  
Corde = 128 pds. cu.







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**BUREAU FEDERAL DE LA STATISTIQUE**

**SECTION DES TRANSPORTS ET UTILITES PUBLIQUES**

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**RECENSEMENT INDUSTRIEL**

**1939**

**USINES ELECTRIQUES CENTRALES  
AU CANADA**

(Préparé en collaboration avec le Bureau Fédéral  
de l'hydraulique et de l'énergie Electrique,  
Ministère des Mines et Ressources)



OTTAWA

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**CANADA**

**DEPARTMENT OF TRADE AND COMMERCE**

**DOMINION BUREAU OF STATISTICS**

**TRANSPORTATION & PUBLIC UTILITIES BRANCH**

**CENSUS OF INDUSTRY**

**1940**

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

(Prepared in collaboration with the Dominion  
Water and Power Bureau, Department of  
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**DOMINION BUREAU OF STATISTICS**  
**TRANSPORTATION AND PUBLIC UTILITIES BRANCH**  
**OTTAWA**

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Chief, Transportation and Public Utilities Branch, G.S. Wrong, B.Sc.

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CENTRAL ELECTRIC STATION INDUSTRY, 1940.

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 23 stations which were holding generating equipment classed as auxiliary plant equipment. Seventeen of them purchased all their electric energy and the remaining eight generated only 5,228,000 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

The output of central electric stations has increased fairly continuously, the only peak in the steady rise being in 1930-32, and again in 1938. In both instances the loss was more than regained in the following year. A feature of the increases in 1940 and also, as shown by the monthly reports for 1941, has been the transfer of secondary power to firm power uses. The firm power produced for use in Canada increased over the previous year by 7.5 p.c. in 1939, 16.1 p.c. in 1940 and 23.0 p.c. in 1941, or a total increase in 1941 over 1938 of 53 p.c. Increased diversions of water at Niagara Falls under agreement with the United States Government



was a factor in the increased production but water conditions in parts of Canada during 1941 were not good and the majority of the large plants were producing at their full capacity with the water available.

The production of electric energy for secondary use each month is shown below. Data for 1937, 1938 and 1939 have been revised to include all secondary power used in Canada.

SECONDARY POWER FOR USE IN CANADA

(Thousands of Kilowatt Hours)

Month	1937	1938	1939	1940
January	749,476	603,778	607,070	571,502
February	701,311	530,471	605,257	546,239
March	751,736	574,663	619,756	484,192
April	689,580	480,828	527,079	443,481
May	662,004	453,897	578,058	588,189
June	640,326	375,160	526,652	575,863
July	554,476	393,922	488,165	565,869
August	533,165	438,746	505,652	414,632
September	527,727	508,344	590,900	326,025
October	611,290	565,342	684,433	297,519
November	675,930	622,047	685,441	309,146
December	705,699	582,857	615,246	300,526
TOTAL	7,802,720	6,130,055	7,033,709	5,423,183

Revised.

The pulp and paper industry used most of this power, viz: 3,381,300,000 kw.h. in their electric boilers and this industry also purchased 4,986,400,000 kw.h. for power and light making a total of 8,367,700,000 kw.h., or 27 p.c. of the total output of all central electric stations in 1940.

The following table shows the consumption of electricity in each province, computed by adding to the production all imports into each province and deducting all exports. One reason the apparent increases are not larger, such as for Quebec, is the large reduction in secondary power. In theory a market for secondary power will allow all the water available to be used up to the maximum capacity of the equipment at each site. Such conditions seldom exist, but when the secondary market is removed the wastage is almost sure to increase, thus reducing the total kilowatt hours produced.

CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)

(Thousands of Kilowatt Hours)

	Secondary Power Delivered to Consumers in Canada  1940	Other Uses and Line Losses  1940	Total		Changes	
			1940	1939	1940 vs. 1939	
					Kw.h.	p.c.
P. E. Island ....	...	8,285	8,285	7,747	+ 538	6.94
Nova Scotia .....	...	444,061	444,061	436,269	+ 7,792	1.79
New Brunswick ...	18,220	435,341	453,561	445,339	+ 8,222	1.85
Quebec .....	3,641,447	8,357,422	11,998,869	11,890,447	+ 108,422	.91
Ontario .....	1,391,223	9,347,492	10,738,715	9,458,130	+ 1,280,585	13.54
Manitoba .....	368,932	1,377,977	1,746,909	1,774,650	- 27,741	- 1.56
Saskatchewan ....	...	175,924	175,924	167,275	+ 8,649	5.17
Alberta .....	...	276,579	276,579	254,247	+ 22,332	8.78
British Columbia and Yukon ....	3,361	2,131,545	2,134,906	1,995,836	+ 139,070	6.97
CANADA .....	5,423,183	22,554,626	27,977,809	26,429,940	+ 1,547,869	5.86

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1940, the export duty amounted to \$443,783 as against \$449,987 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported.

Below is a table showing the quantities of power produced for export for the calendar year 1940, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES

(Calendar Year 1940)

Company	Produced for Export	Exported
	Kw. h.	Kw. h.
Hydro Electric Power Commission of Ontario .....	399,053,000	395,620,100
" " " " " " (surplus)-Niagara..	529,355,300	520,970,400
" " " " " " " -Cornwall	212,915,585	190,895,244
Cedar Rapids Manufacturing and Power Co., Ltd. ....	668,277,028	636,726,412
Canadian Niagara Power Co., Ltd. ....	351,914,000	323,955,002
" " " " " " (Surplus) .....	15,576,100	15,576,100
Ontario and Minnesota Power Co., Ltd. ....	23,732,300	23,732,300
Maine and New Brunswick Electric Power Co. ....	22,679,842	21,871,011
British Columbia Electric Railway Co., Ltd. ....	220,000	191,400
Northport Power and Light Co. ....	294,494	294,494
Southern Canada Power Company .....	437,238	437,238
Canadian Cottons, Ltd. ....	548,460	548,460
Northern British Columbia Power Co. ....	24,190	24,190
Fraser Companies, Ltd. ....	3,305,800	3,305,800
Detroit and Windsor Subway Company .....	273,200	273,200
Manitoba Power Commission .....	1,013,400	1,013,400
TOTAL .....	2,229,619,937	2,135,434,751
Kilowatt hours produced for export and exported by central electric stations only .....	2,226,314,137	2,132,128,951

Of the total output of 30,109,283,000 kw.h., 29,524,248,000 kw.h. or over 98 p.c. was produced by water power, whereas only 562,756,000 kw.h. were produced by plants using only thermal engines and 22,279,000 kw.h. were produced by auxiliary equipment in hydraulic plants and in non-generating plants.



Total hydraulic installations in all industries in Canada at the close of 1940, including active and inactive plants, as compiled by the Dominion Water and Power Bureau was 8,584,438 horse power. The available and developed water power in each province is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province (1)	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow (2)	At Ordinary Six Months Flow (3)	1 9 4 0 (4)	1 9 4 1 (5)
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	139,217	139,217
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	4,320,943	4,556,943
Ontario .....	5,330,000	6,940,000	2,597,595	2,617,495
Manitoba .....	3,309,000	5,344,500	420,925	420,925
Saskatchewan .....	542,000	1,082,000	90,835	90,835
Alberta .....	390,000	1,049,500	71,997	71,997
British Columbia ...	1,931,000	5,103,500	788,763	788,763
Yukon & Northwest Territories .....	294,000	731,000	18,199	22,899
CANADA .....	20,347,400	33,617,200	8,584,438	8,845,038

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse power.

TABLE 1 - COMPARATIVE SUMMARY, 1931-1940

During the year there was a reduction of 9 fuel stations but no change was made in the number of hydraulic stations. Capital invested increased by 3.3 p.c. and revenues were higher by \$14,347,304 or 9.5 p.c. The number of domestic customers continued to increase to 1,834,386 or 4.4 p.c. greater than in 1939. Small power customers declined by 758 but large power customers increased by 223 and the power consumed by each class showed increases, consumption by large power customers being up by 6.3 p.c.

TABLE 2 - DOMESTIC SERVICE, 1931-1940

This table shows the number of customers, the consumption, revenue, and averages computed from these for domestic service including farm service for 1940 back to 1931. In all provinces the number of customers increased during this period, the percentages ranging from 16.7 p.c. in Saskatchewan to 63 p.c. in Nova Scotia. The total consumption also increased in all provinces, Prince Edward Island leading here with an increase of 129 p.c. All of the provinces showed increased revenues from domestic service. The average annual consumption per customer varied widely, Manitoba leading with an average in 1940 of 3,960 kw.hrs. per customer and New Brunswick showing the smallest consumption at 580 kw.hrs. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario and British Columbia have been remarkably close together throughout these ten years despite the wide variations in unit costs. Domestic services are further discussed under Table 5 and at the end of this report.

TABLE 3 - POWER PLANTS

The generating stations are the individual power plants of the central electric stations. Each building housing power machinery is counted as a generating station. The commercial organizations are companies and individuals selling electric energy and the municipalities include urban and rural municipalities, provincial commissions, etc., selling electric energy. Those generating power operate from one to several power plants each, the largest system being the Ontario Hydro Electric Power Commission which operates 49 hydraulic plants and owns one steam **auxiliary** plant. The auxiliary plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations

TABLE 4 - CAPITAL

The capital employed in the industry is reported under three heads, viz., generation, transmission and distribution, and general. "Generation" includes investments in power houses and sites, dams penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. "Transmission and distribution" includes all transmission and distribution towers, poles, wires, cables and conduits and right-of-way, receiving stations and substations and sites, switchboards and step-up transformers in these and in power houses, step-down transformers, meters, etc. "General" includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal years, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. The averages of total capital per unit of power are more indicative of different classes of stations and service given than costs of similar installations. The same also applies to generation capital per unit of power, only to a lesser degree.

TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service, which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick, and Alberta, which purchased power from other provinces, were lower than they should have been. /

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the use of electric stoves, flat rate water heaters, the source of supply, the firm power load, the market or off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services, for

/ See 1933 report, page 5, for effect of this omission.



commercial light, etc., line losses were not included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average cost of 1.91 cents per kilowatt hour for all domestic service compares with an average of 3.94 cents or 3.74 cents including farm services in the United States. The average revenues per horse power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in tables 12 and 13 were increased one horse power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro Electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per week for each horse power purchased. It is quite probable this output is a little too high for all the power imported from Quebec and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

The federal sales tax of 8 p.c. of domestic service bills has been treated by practically all central electric stations as a tax on the consumer and was not included in either revenues or expenses. The Act placed the tax on the producer or importer, but a subsequent Order in Council allowed the producer or importer to increase the charge to the consumer by the amount of the tax irrespective of any agreements, charters, etc.

#### TABLE 6 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations. As explained above the federal sales tax on domestic bills has not been included in the taxes shown in this table.

#### TABLE 7 - EMPLOYEES

The net increase in the number of employees during the year was 206, Prince Edward Island, Nova Scotia, Manitoba and British Columbia showing decreases and the other provinces show-

ing increases. The following table analyses the hours of work of wage earners in the industry. Over half of the employees worked a 48 hour week and 82.2 p.c. worked 48 hours or less per week.

NUMBER OF WAGE EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS PER WEEK WERE:

Hours per Week	40 or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 & over	Total
P.E.I.	-	-	-	-	38	-	-	2	-	-	2	42
N.S.	198	5	48	80	459	26	41	42	6	72	124	1,101
N.B.	19	18	-	1	129	14	10	167	7	19	7	391
Quebec	305	1	165	19	2,653	28	21	513	4	121	122	3,952
Ontario	631	23	720	175	3,418	234	19	212	25	226	91	5,774
Manitoba	28	-	60	-	531	13	-	7	-	2	3	644
Sask.	20	-	51	15	171	3	8	119	-	6	31	424
Alberta	112	-	85	-	218	1	-	1	28	1	-	446
B.C. and Yukon	307	-	210	10	865	2	-	-	-	9	5	1,408
CANADA	1,620	47	1,339	300	8,482	321	99	1,063	70	456	385	14,182
Per cent of Total	11.4	.3	9.5	2.1	59.8	2.3	.7	7.5	.5	3.2	2.7	100.0

TABLE 8 - CUSTOMERS

As explained under table 4, stations are asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. The number of farm customers reported for 1940 was 102,547 or 6.1 p.c. of the combined domestic and farm customers, and they consumed 115,081,000 kilowatt hours. From the 1931 population census data we know the actual number of farms served was considerably greater than this, the difference probably being included with domestic services. Farms close to large urban centres receiving service at rates similar to urban customers still will be classed as domestic customers in many cases. In Ontario where the majority of farm customers are served by the provincial commission and are classed as farm customers the difference from the 1931 census figure was small. In 1940 the Ontario farm customers reported were 60,353 or 59 p.c. of the total. Quebec stations reported 26,528 farm customers. For the other provinces 15,666 were reported, but if the 1931 data can be used as a criterion this is considerably less than the actual number of farms served. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality itself distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. The average number of domestic service customers per 100 population increased from 14.4 in 1939 to 14.9 in 1940. These averages are based on the Bureau's estimated populations and each residence or family served is counted as one customer. These averages were first computed for 1920 and since then the average for Canada has increased from 8.86 to 14.3 or by 68 p.c.

TABLE 9 - POLE LINE MILEAGE

Transmission and distribution lines have been combined in this table instead of being separated as in reports previous to 1934 and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileages.

TABLES 10-11-12-13 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand the greater part of it is held strictly in reserve for emergencies, only 13,211,000 kilowatt hours being generated during the year by this auxiliary equipment.

TABLE 14 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt-hour meters the kilowatt hours are estimated as best possible. The K.v.A. capacities shown were the rated dynamo capacities at the close of the year of both main



and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 Kv.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. In some cases this changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly especially up to 1937. Since the outbreak of war this secondary power market has been curtailed and what was surplus power was used to meet the demand for firm power in 1940 and to a still greater extent in 1941.

#### TABLE 15 - FUEL

Fuel used is almost entirely local coal, oil, and gas, and Saskatchewan and Nova Scotia are the only provinces using any substantial quantities of fuel to develop electric energy. Nova Scotia has several large hydro-electric developments, but Saskatchewan has only one which is on the Manitoba boundary and is included with Manitoba stations in these statistics. "Other fuel" is composed of steam purchased by a Nova Scotia station and sawdust and "hog" fuel in British Columbia.

#### DOMESTIC SERVICE

In the following table data on domestics are brought together and analysed. As might be expected the provinces with relatively high percentages of rural populations, Prince Edward Island, Saskatchewan and Alberta show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of the

use. Manitoba's low unit cost and high average consumption are influenced by flat rate water heaters in Winnipeg which induce high consumption per customer. Also where hydro-electric power is plentiful the rates are generally low and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and large consumption by pulp and paper and electric metallurgical plants.

Domestic customers in Ontario used almost 60 p.c. of the total power used by all domestic customers in Canada but the population of this province was 33 p.c. of the total for the Dominion.

DOMESTIC SERVICE, 1940

PROVINCE	NUMBER OF CUSTOMERS		AVERAGE BILL FOR YEAR	AVERAGE PER KILOWATT HOUR	AVERAGE ANNUAL CONSUMPTION		CONSUMPTION BY DOMESTIC SERVICE	
	Total	Per 100 Population			Per Customer	Per Capita	Per cent of total Provincial Consumption	Per cent Dominion Dom. Ser Consumpt
			\$	¢	Kw.Hr.	Kw.Hr.		
P.E. Island	5,227	5.56	33.03	5.61	588	33	37.1	.1
Nova Scotia	73,790	13.13	25.45	4.34	586	77	9.7	1.8
New Brunswick	50,681	11.21	27.88	4.81	580	65	6.5	1.2
Quebec	451,791	13.87	21.32	2.97	717	99	2.5	13.3
Ontario	745,396	19.81	28.08	1.43	1,958	388	13.6	59.9
Manitoba	83,404	11.46	41.04	1.04	3,960	454	18.9	13.6
Saskatchewan	51,425	5.53	40.70	4.82	844	47	24.7	1.8
Alberta	69,397	8.67	32.78	5.04	650	56	16.3	1.8
B.C. & Yukon	163,277	20.44	28.34	2.91	972	199	7.5	6.5
CANADA	1,694,388	14.88	27.41	1.91	1,438	214	8.7	100.0

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TABLE 1 - COMPARATIVE SUMMARY, 1931-1940.

PRINCIPAL DATA BY CLASS OF STATION	1940	1939	1938	1937	1936
<b>ELECTRIC POWER PLANTS</b>					
Total .....	602	611	589	568	561
Hydraulic .....	313	313	313	314	312
Steam .....	289	298	276	254	249
Commercial .....	421	427	406	389	390
Municipal .....	181	184	183	179	171
<b>CAPITAL</b>					
Total .....	1,615,438,140	1,564,603,211	1,545,416,592	1,497,330,231	1,483,118,649
Commercial .....	1,049,506,904	1,014,704,865	1,002,891,485	979,950,159	957,466,865
Municipal .....	565,931,236	549,898,346	542,525,107	517,380,072	525,643,784
Generating .....	1,440,026,870	1,396,838,921	1,377,120,289	1,337,399,695	1,326,820,103
Non-generating .....	175,411,270	167,764,290	168,296,303	159,930,536	156,296,546
<b>REVENUE (1)</b>					
Total .....	166,228,773	151,880,969	144,331,627	143,546,643	135,865,173
Commercial .....	99,887,052	92,535,049	87,697,078	85,283,008	78,882,504
Municipal .....	66,341,721	59,345,920	56,634,549	58,263,635	56,982,669
Generating .....	139,673,392	127,483,222	120,784,939	120,465,135	112,776,015
Non-generating .....	26,555,381	24,397,747	23,546,688	23,081,508	23,089,158
<b>EXPENSES (2)</b>					
Total .....	105,044,158	91,982,372	87,364,340	84,185,082	77,939,050
Commercial .....	51,990,160	42,471,534	41,067,998	41,132,931	36,530,527
Municipal .....	53,053,998	49,510,838	46,296,342	43,052,151	41,408,523
Generating .....	60,752,761	51,570,137	48,946,422	46,114,640	41,390,019
Non-generating .....	44,291,397	40,412,235	38,417,918	38,070,442	36,549,031
<b>POLE LINE MILEAGE</b>					
Total .....	75,050	72,132	66,977	63,035	59,436
Commercial .....	30,933	30,288	29,355	28,332	27,271
Municipal .....	44,117	41,844	37,622	34,703	32,165
Generating .....	59,676	57,084	52,373	48,866	45,099
Non-generating .....	15,374	15,048	14,604	14,169	14,337
<b>CUSTOMERS</b>					
Total .....	2,014,508	1,941,663	1,873,621	1,805,995	1,740,793
Domestic service (3) .....	1,694,388	1,623,672	1,559,394	1,500,128	1,443,059
Commercial light .....	265,175	262,590	259,893	252,305	245,144
Power (small) .....	43,138	43,896	41,999	41,415	40,742
Power (large) .....	9,490	9,267	10,152	10,066	9,840
Street lighting .....	2,317	2,238	2,183	2,081	2,008
Commercial stations .....	926,093	889,418	859,506	833,711	802,676
Municipal stations .....	1,088,415	1,052,245	1,014,115	972,284	958,117
Generating stations .....	1,032,433	998,067	954,797	916,648	866,407
Non-generating stations .....	982,075	943,596	918,824	889,347	874,386
<b>ELECTRIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	20,109,283	28,338,030	26,154,160	27,687,645	25,402,282
Commercial .....	22,287,270	21,290,930	19,488,323	20,515,627	18,515,225
Municipal .....	7,822,013	7,047,100	6,665,837	7,372,018	6,887,057
Exports to the United States (4)...(thousands) Kw.h.	2,132,129	1,908,756	1,822,103	1,843,227	1,573,980
Imports from the United States (4)..(thousands)Kw.h.	655	666	624	1,317	765
<b>EQUIPMENT IN GENERATING STATIONS (MAIN PLANT ONLY)</b>					
Total Primary Power .....	7,935,867	7,607,122	7,476,976	7,342,085	7,119,272
Total in commercial stations .....	5,708,664	5,385,632	5,300,183	5,208,529	5,012,968
Total in municipal stations .....	2,227,203	2,221,490	2,176,793	2,133,556	2,106,304
Total Secondary Power .....	6,691,211	6,435,416	6,327,868	6,206,465	6,025,999
Total in commercial stations .....	4,906,268	4,654,745	4,586,273	4,496,443	4,340,869
Total in municipal stations .....	1,784,943	1,780,671	1,741,595	1,710,022	1,685,130
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	194,914	194,139	195,628	197,350	200,621
Secondary power .....	166,367	165,785	166,600	167,839	172,327

(1) Duplications excluded.

(2) Includes wages, cost of power, fuel and taxes, but not other expenses.

(3) Farm service is included with domestic service.

(4) By central electric stations only. (see page 2).

TABLEAU 1 - SOMMAIRE COMPARATIF, 1931-1940.

1 9 3 5	1 9 3 4	1 9 3 3	1 9 3 2	1 9 3 1	DONNEES PRINCIPALES PAR CLASSES D'USINES
566	573	575	572	559	<u>USINES ELECTRIQUES</u>
316	314	314	312	307	<u>Total</u>
250	259	261	260	252	Hydrauliques
397	402	403	402	396	A combustible
169	171	172	170	163	Commerciales
					Municipales
1,459,821,168	1,450,852,166	1,386,552,055	1,335,886,987	1,229,968,961	<u>CAPITAL</u>
962,263,142	956,382,436	913,946,953	880,013,400	785,915,480	<u>Total</u>
497,558,026	474,469,730	472,585,102	455,873,587	444,073,471	Commerciales
1,307,710,173	1,281,048,308	1,240,169,785	1,191,499,567	1,092,292,089	Municipales
152,110,995	149,803,663	146,362,270	144,587,420	137,696,862	Génératrices
					Non-génératrices
127,177,954	124,463,613	117,532,081	121,212,679	122,310,730	<u>RECETTES (1)</u>
79,341,554	77,309,001	73,082,078	73,124,089	72,103,930	<u>Total</u>
47,836,400	47,154,612	44,450,003	48,088,590	50,206,800	Commerciales
105,658,584	104,089,041	98,735,084	100,821,712	101,475,523	Municipales
21,539,370	20,374,572	18,796,997	20,390,967	20,835,207	Génératrices
					Non-génératrices
79,625,154	75,948,821	73,051,651	74,306,251	75,235,767	<u>DEPENSES (2)</u>
33,836,054	31,778,237	29,169,633	30,349,320	32,418,131	<u>Total</u>
45,789,080	44,170,584	42,882,018	43,956,931	42,817,636	Commerciales
43,904,771	40,911,118	38,608,455	40,262,157	41,556,873	Municipales
35,720,363	35,037,703	34,443,196	34,044,094	33,898,894	Génératrices
					Non-génératrices
57,602	56,214	56,570	53,845	52,399	<u>LIGNES SUR POTEAUX</u>
26,520	26,476	25,129	25,010	24,299	<u>Total</u>
31,082	29,738	31,441	28,835	28,100	Commerciales
43,372	42,537	43,625	40,675	39,709	Municipales
14,230	13,677	12,945	13,170	12,690	Génératrices
					Non-génératrices
1,694,703	1,660,079	1,666,882	1,657,454	1,632,792	<u>ABONNES</u>
1,401,983	1,379,153	1,371,806	1,357,462	1,336,721	<u>Total</u>
240,468	229,187	244,283	248,487	244,634	Service domestique (3)
40,292	41,429	40,641	28,942	25,913	Eclairage commercial
9,989	8,325	8,160	20,593	23,583	Force motrice (petite)
1,971	1,985	1,992	1,970	1,941	Force motrice (grosse)
					Eclairage des rues
779,400	760,462	776,581	776,400	758,285	Usines commerciales
915,303	899,617	890,301	881,054	874,507	Usines municipales
837,278	819,419	843,524	846,420	835,460	Usines génératrices
857,425	840,660	823,558	811,034	797,332	Usines non-génératrices
23,283,033	21,197,124	17,338,990	16,052,057	16,330,867	<u>ENERGIE ELECTRIQUE GENEREE</u>
17,767,949	16,060,883	13,665,974	12,338,216	12,191,139	<u>Total Kw. heures générés (milliers)</u>
5,515,084	5,136,241	3,673,016	3,713,841	4,139,707	Commerciale
					Municipale
1,359,021	1,243,079	983,561	659,691	1,227,036	Exportations d'électricité aux Etats-Unis (4)..... (milliers).. Kw.h.
656	642	608	552	5,446	Importations d'électricité des Etats-Unis (4)..... (milliers).. Kw.h.
7,104,142	6,854,161	6,616,006	6,343,654	5,706,757	<u>MACHINERIE DANS LES USINES GENERATRICES</u>
5,136,200	4,961,639	4,707,096	4,577,493	4,046,810	(Usines principales seulement)
1,965,942	1,892,522	1,908,910	1,766,161	1,659,947	Total force motrice primaire ..... H.P..
5,893,984	5,399,555	5,491,685	5,278,204	4,727,376	Total dans les usines commerciales .... H.P..
4,317,823	4,179,536	3,956,475	3,850,009	3,388,926	Total dans les usines municipales ..... H.P..
1,576,161	1,520,419	1,535,210	1,428,195	1,338,450	Total force motrice secondaire ..... Kv.a.
					Total dans les usines commerciales..... Kv.a.
					Total dans les usines municipales ..... Kv.a.
206,831	207,431	193,569	184,879	184,043	<u>OUTILLAGE D'USINES AUXILIAIRES</u>
176,890	177,244	164,732	157,077	157,221	Force motrice primaire ..... H.P..
					Force motrice secondaire..... Kv.a.

(1) Duplications exclues.

(2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

(3) L'éclairage des fermes est inclus dans l'éclairage domestique.

(4) Par usines centrales électriques seulement. (Voir page 2).



TABLE 2 - DOMESTIC SERVICE, 1931 - 1940.

Year Année	Number of Customers Nombre d'usagers	Kilowatt Hours Consumed Kilowatt heures consommées	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager	Average Annual Bill Compte moyen de l'année	Revenue per Kilowatt Hour Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	\$
CANADA ..... 1931	1,336,721	1,563,705	35,259,391	1,170	26.38	2.25
1932	1,357,462	1,639,498	36,422,073	1,208	26.83	2.22
1933	1,371,806	1,650,395	35,953,823	1,203	26.21	2.18
1934	1,379,153	1,717,090	36,507,822	1,245	26.47	2.13
1935	1,401,983	1,769,848	36,773,643	1,262	26.23	2.08
1936	1,443,059	1,887,116	38,399,102	1,308	26.61	2.03
1937	1,500,128	2,007,433	39,253,133	1,338	26.17	1.96
1938	1,559,394	2,172,500	41,302,107	1,393	26.49	1.90
1939	1,623,672	2,310,891	43,793,482	1,423	26.97	1.90
1940	1,694,388	2,436,572	46,444,357	1,438	27.41	1.91
Change (Changement) 1931-1940						
Amount (Volume)	357,667	872,867	11,184,966	268	1.03	- .34
Per cent (p.c.)	26.76	55.82	31.72	22.91	3.90	- 15.11
PRINCE EDWARD ISLAND .. 1931	3,980	1,343	120,606	337	30.30	8.98
1932	3,978	1,498	129,835	377	32.63	8.67
1933	3,970	1,584	135,231	399	34.06	8.54
1934	4,097	1,605	133,843	392	32.67	8.34
1935	4,199	1,722	134,740	410	32.08	7.82
1936	4,379	2,035	145,442	465	33.21	7.15
1937	4,545	2,232	152,660	491	33.59	6.84
1938	4,799	2,579	150,994	537	31.46	5.85
1939	5,067	2,908	163,226	574	32.21	5.61
1940	5,227	3,076	172,643	588	33.03	5.61
Change (Changement) 1931-1940						
Amount (Volume)	1,247	1,733	52,037	251	2.73	- 3.37
Per cent (p.c.)	31.33	129.04	43.15	74.48	9.01	- 37.53
NOVA SCOTIA ..... 1931	45,252	19,120	1,151,609	423	25.45	6.02
1932	46,421	21,213	1,201,279	457	25.88	5.66
1933	47,124	21,800	1,199,951	463	25.46	5.50
1934	48,852	23,637	1,257,599	484	25.74	5.32
1935	52,300	25,837	1,330,632	496	25.44	5.13
1936	54,763	29,212	1,457,054	533	26.61	4.99
1937	58,165	31,692	1,535,298	545	26.40	4.84
1938	58,556	35,307	1,595,086	603	27.24	4.52
1939	62,034	39,084	1,709,507	630	27.56	4.37
1940	73,790	43,277	1,877,812	586	25.45	4.34
Change (Changement) 1931-1940						
Amount (Volume)	28,538	24,157	726,203	163	0.00	- 1.68
Per cent (p.c.)	63.06	126.34	63.06	38.53	0.00	- 27.91
NEW BRUNSWICK ..... 1931	33,964	17,676	901,325	520	26.54	5.10
1932	35,543	19,230	971,597	541	27.34	5.05
1933	34,959	18,740	954,423	536	27.30	5.09
1934	35,364	19,607	962,212	554	27.21	4.91
1935	36,602	20,597	994,895	563	27.18	4.83
1936	38,660	22,049	1,068,038	570	27.63	4.84
1937	41,604	23,488	1,117,953	565	26.87	4.76
1938	43,556	25,367	1,232,937	582	28.31	4.86
1939	46,485	26,989	1,307,772	581	28.13	4.85
1940	50,681	29,388	1,413,237	580	27.88	4.91
Change (Changement) 1931-1940						
Amount (Volume)	16,717	11,712	511,912	60	1.34	- .29
Per cent (p.c.)	49.22	66.26	56.80	11.54	5.05	- 5.69
QUEBEC ..... 1931	375,764	223,671	8,100,380	595	21.56	3.62
1932	385,211	239,032	8,210,401	621	21.31	3.43
1933	385,175	240,110	7,795,948	623	20.24	3.25
1934	378,705	237,322	7,776,391	627	20.53	3.28
1935	378,388	226,285	7,297,458	598	19.29	3.22
1936	390,711	241,799	7,723,973	619	19.77	3.19
1937	407,155	265,405	8,108,946	652	19.92	3.06
1938	421,178	287,107	8,669,034	682	20.58	3.02
1939	434,825	311,420	9,167,584	716	21.08	2.94
1940	451,791	324,032	9,634,398	717	21.32	2.97
Change (Changement) 1931-1940						
Amount (Volume)	76,027	100,361	1,534,018	122	- .24	- .65
Per cent (p.c.)	20.23	44.87	18.94	20.50	- 1.11	- 17.96



TABLEAU 2- SERVICE DOMESTIQUE, 1931 - 1940

	Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
	Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heures
			(000)	\$	kw. hrs.	\$	\$
ONTARIO .....	1931	579,721	868,072	15,448,069	1,497	26.65	1.78
	1932	585,343	912,169	16,170,224	1,558	27.65	1.77
	1933	598,347	917,649	16,262,707	1,534	27.18	1.77
	1934	605,885	980,978	16,811,849	1,619	27.75	1.71
	1935	618,111	1,025,929	17,171,434	1,657	27.78	1.68
	1936	634,052	1,098,598	17,716,636	1,733	27.94	1.61
	1937	660,262	1,174,358	17,718,464	1,779	26.84	1.51
	1938	691,498	1,285,568	18,456,575	1,859	26.69	1.44
	1939	719,871	1,374,525	19,657,658	1,909	27.51	1.45
	1940	745,396	1,459,233	20,928,097	1,958	28.08	1.43
Change (Changement) 1931-1940							
Amount (Volume)		165,675	591,161	5,480,028	461	1.45	.35
Per cent (p.c.)		28.58	68.10	35.47	30.79	5.57	19.66
MANITOBA .....	1931	71,324	257,482	2,679,138	3,610	37.56	1.04
	1932	71,954	270,272	2,873,481	3,758	39.93	1.06
	1933	72,935	275,048	2,743,877	3,771	37.62	1.00
	1934	73,545	282,067	2,782,475	3,835	37.85	0.99
	1935	74,538	289,314	2,914,963	3,861	39.11	1.01
	1936	75,858	296,110	3,029,140	3,903	39.93	1.02
	1937	76,516	303,271	3,122,397	3,963	40.81	1.03
	1938	77,762	311,795	3,223,605	4,010	41.45	1.03
	1939	81,091	320,827	3,311,682	3,956	40.84	1.05
	1940	83,404	330,269	3,423,312	3,960	41.04	1.04
Change (Changement) 1931-1940							
Amount (Volume)		12,080	72,787	744,174	350	3.48	0.00
Per cent (p.c.)		16.94	28.27	27.78	9.70	9.27	0.00
SASKATCHEWAN .....	1931	44,078	35,524	1,809,029	806	41.04	5.09
	1932	44,952	36,142	1,802,758	804	40.10	4.99
	1933	44,319	36,317	1,775,697	819	40.07	4.89
	1934	44,493	34,906	1,741,371	785	39.14	4.99
	1935	45,451	35,402	1,795,683	779	39.51	5.07
	1936	46,478	36,044	1,851,794	776	39.84	5.14
	1937	46,630	37,234	1,852,503	798	39.75	4.98
	1938	48,060	39,077	1,903,731	813	39.61	4.87
	1939	49,980	41,198	2,004,433	824	40.10	4.87
	1940	51,425	43,406	2,093,205	844	40.70	4.82
Change (Changement) 1931-1940							
Amount (Volume)		7,347	7,882	284,176	38	.34	.27
Per cent (p.c.)		16.67	22.19	15.71	4.71	.83	5.30
ALBERTA .....	1931	56,890	30,196	1,721,292	551	30.28	5.70
	1932	57,459	29,792	1,714,412	518	29.84	5.75
	1933	57,330	29,668	1,728,551	517	30.15	5.85
	1934	58,375	30,378	1,764,295	520	30.22	5.81
	1935	58,127	31,656	1,714,128	544	29.49	5.42
	1936	59,600	33,481	1,769,422	562	30.02	5.34
	1937	61,121	35,339	1,865,520	578	30.52	5.28
	1938	63,030	36,089	1,985,226	604	31.46	5.21
	1939	68,267	42,210	2,145,093	618	31.42	5.08
	1940	69,397	45,110	2,275,091	650	32.78	5.04
Change (Changement) 1931-1940							
Amount (Volume)		12,507	14,914	553,799	119	2.52	.66
Per cent (p.c.)		21.98	49.39	32.17	22.41	8.33	11.58
BRITISH COLUMBIA AND YUKON ) .....	1931	125,748	110,621	3,327,943	880	26.47	3.01
	1932	126,601	110,150	3,348,086	870	26.45	3.04
	1933	127,647	109,479	3,357,638	858	26.30	3.07
	1934	129,837	108,590	3,277,787	821	25.25	3.08
	1935	134,267	115,026	3,419,710	857	25.47	2.97
	1936	138,558	127,788	3,617,603	922	26.11	2.85
	1937	144,130	134,414	3,779,392	933	26.22	2.81
	1938	150,955	147,613	4,086,919	978	27.07	2.77
	1939	156,052	151,930	4,326,747	974	27.73	2.85
	1940	163,277	158,781	4,626,562	972	28.34	2.91
Change (Changement) 1931-1940							
Amount (Volume)		37,529	48,160	1,298,619	92	1.87	.10
Per cent (p.c.)		29.84	43.54	39.02	10.45	7.06	3.32

TABLE 3 - ELECTRIC POWER PLANTS, 1940.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Total number of generating stations.....	602	9	45	13	97
Per cent of total for Canada.....	100.00	1.50	7.48	2.16	16.11
<u>COMMERCIAL</u> .....	421	7	20	7	81
Hydraulic.....	206	5	12	4	79
Fuel.....	215	2	8	3	2
<u>MUNICIPAL</u> .....	181	2	25	6	16
Hydraulic.....	107	-	18	3	14
Fuel.....	74	2	7	3	2
With water wheels and turbines.....	313	5	30	7	93
With steam engines only.....	28	-	2	1	-
With steam turbines only.....	23	1	6	1	1
With gas or oil engines only.....	233	3	7	3	3
With both steam engines and turbines.....	5	-	-	1	-
With both steam and gas or oil engines.....	-	-	-	-	-
With alternating current dynamos only.....	463	9	44	11	95
With direct current dynamos only.....	136	-	1	1	2
With both alternating and direct current dynamos..	3	-	-	1	-
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 398	8	20	16	70
Number generating power.....	294	6	11	6	42
Number buying power for redistribution.....	104	2	9	10	28
<u>MUNICIPALITIES</u> .....	X 466	2	26	10	29
Number generating power.....	74	2	8	2	10
Number buying power for redistribution.....	392	-	18	8	19
<u>AUXILIARY PLANTS</u> .....	64	2	9	2	7
To hydraulic stations.....	41	2	3	-	6
To non-generating stations.....	23	-	6	2	1

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.

TABEAU 3 - USINES GENERATRICES, 1940

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
135	25	139	71	68	<u>Nombre d'usines génératrices</u>
22.43	4.15	23.09	11.79	11.29	Pourcentage du total pour le Canada
62	15	107	62	60	<u>COMMERCIALES</u>
58	4	-	4	40	Hydrauliques
4	11	107	58	20	A combustible
73	10	32	9	8	<u>MUNICIPALES</u>
64	2	-	1	5	Hydrauliques
9	8	32	8	3	A combustible
122	6	-	5	45	Avec roues et turbines hydrauliques
8	3	-	9	5	Avec machines à vapeur seulement
-	1	6	4	3	Avec turbines à vapeur seulement
5	15	131	51	15	Avec moteurs à gaz ou à pétrole seulement
-	-	2	2	-	Avec machines et turbines à vapeur à la fois
-	-	-	-	-	Avec machines à vapeur à gaz et à pétrole
133	23	48	36	64	Avec dynamos à courant alternatif seulement
2	1	91	34	4	Avec dynamos à courant direct seulement
-	1	-	1	-	Avec dynamos à courant alternatif et direct
57	18	90	63	55	<u>USINES COMMERCIALES</u>
38	11	88	53	38	Nombre d'usines génératrices
19	7	2	10	17	Nombre d'usines achetant de l'électricité pour la revendre
331	11	24	15	16	<u>MUNICIPALITES</u>
15	6	16	7	6	Nombre d'usines génératrices
316	5	8	8	10	Nombre d'usines achetant de l'électricité pour la revendre
9	6	-	9	20	<u>USINES AUXILIAIRES</u>
5	2	-	8	15	Aux usines hydrauliques
4	4	-	1	5	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.



TABLE 4 - CAPITAL, 1940.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL CAPITAL</b> .....	1,615,438,140	1,483,196	38,545,439	35,106,401	707,482,516
Per cent of total for Canada.....	100.00	0.09	2.39	2.17	43.79
Generation.....	950,716,507	755,237	22,892,498	23,038,194	496,418,422
Transmission and distribution.....	546,659,217	585,748	12,813,214	10,465,217	159,034,550
General.....	118,062,416	142,211	2,839,727	1,602,990	52,029,544
<b>TOTAL CAPITAL IN COMMERCIAL STATIONS</b> .....	1,049,506,904	1,220,512	18,165,718	23,061,944	698,095,167
Generation.....	709,864,853	592,495	8,126,743	18,603,813	491,562,859
Transmission and distribution.....	259,730,161	507,705	7,634,113	3,633,110	154,936,798
General.....	79,911,890	120,312	2,404,862	825,021	51,595,510
Non-generating stations.....	43,500,353	5,500	7,629,731	2,083,190	679,740
Generating stations.....	1,006,006,551	1,215,012	10,535,987	20,978,754	697,415,427
Hydraulic stations.....	981,323,902	132,096	5,506,361	17,703,877	697,363,385
Fuel stations.....	24,682,649	1,082,916	5,029,626	3,274,877	52,042
<b>TOTAL CAPITAL IN MUNICIPAL STATIONS</b> .....	565,931,236	262,684	20,379,721	12,044,457	9,387,349
Generation.....	240,851,654	162,742	14,765,755	4,434,381	4,855,563
Transmission and distribution.....	286,929,056	78,043	5,179,101	6,832,107	4,097,752
General.....	38,150,526	21,899	434,865	777,969	434,034
Non-generating stations.....	131,910,917	-	2,059,494	1,429,069	2,650,828
Generating stations.....	434,020,319	262,684	18,320,227	10,615,388	6,736,521
Hydraulic stations.....	410,464,432	-	17,199,563	6,318,981	6,408,157
Fuel stations.....	23,555,887	262,684	1,120,664	4,296,407	328,364
<b>TOTAL CAPITAL IN NON-GENERATING STATIONS</b> .....	175,411,270	5,500	9,689,225	3,512,259	3,330,568
Generation.....	3,638,980	-	1,792,681	298,776	696,888
Transmission and distribution.....	144,773,440	5,500	5,693,179	2,540,345	2,421,011
General.....	26,998,850	-	2,203,365	673,138	212,669
<b>TOTAL CAPITAL IN GENERATING STATIONS</b> .....	1,440,026,870	1,477,696	28,856,214	31,594,142	704,151,948
Generation.....	947,077,527	755,237	21,099,817	22,739,418	495,721,534
Transmission and distribution.....	401,885,777	580,248	7,120,035	7,924,872	156,613,539
General.....	91,063,566	142,211	636,362	929,852	51,816,875
Hydraulic stations.....	1,391,788,334	132,096	22,705,924	24,022,858	703,771,542
Fuel stations.....	48,238,536	1,345,600	6,150,290	7,571,284	380,406
<b>TOTAL CAPITAL</b> .....					
Average per H.P. of primary power.....	204	177	227	251	182
Average per H.P. including auxiliary equipment.....	199	174	211	247	180
Average per Kv.A. of dynamo capacity.....	241	237	272	296	207
Average per Kv.A. including auxiliary equipment.....	236	235	253	291	205
<b>GENERATION</b> .....					
Average cost per H.P. (including auxiliary equipment)					
In all generating stations.....	117	89	124	163	127
In hydraulic stations.....	119	140	166	177	127
In fuel stations.....	72	85	60	118	75

X - Capital invested in one hydraulic station in Saskatchewan included in Manitoba.

TABLEAU 4 - CAPITAL, 1940.

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
576,958,829 35.72	X 78,387,486 4.85	26,964,137 1.67	29,868,143 1.85	120,641,993 7.47	<u>TOTAL CAPITAL</u> Pourcentage du total pour le Canada
276,222,275	43,987,992	13,259,124	12,806,843	61,335,922	Génération
260,472,682	30,302,268	12,010,760	14,910,127	46,064,651	Transmission et distribution
40,263,872	4,097,226	1,694,253	2,151,173	13,241,420	Généralités
113,079,589 83,625,280 20,755,208 8,699,101	41,394,630 30,206,725 10,622,269 565,636	12,606,354 6,046,806 5,564,186 995,362	23,390,524 10,515,705 11,290,083 1,584,736	118,492,466 60,584,427 44,786,689 13,121,350	<u>TOTAL CAPITAL DANS LES USINES COMMERCIALES</u> Génération Transmission et distribution Généralités
2,961,882 110,117,707 110,094,251 23,456	1,127,570 40,267,060 39,877,253 389,807	1,766,527 10,839,827 - 10,839,827	113,172 23,277,352 19,971,313 3,306,039	27,133,041 91,359,425 90,675,366 684,059	Usines non-génératrices Usines génératrices Usines hydrauliques Usines à combustible
463,879,240 192,596,995 239,717,474 31,564,771	36,992,856 13,781,267 19,679,999 3,531,590	14,357,783 7,212,318 6,446,574 698,891	6,477,619 2,291,138 3,620,044 566,437	2,149,527 751,495 1,277,962 120,070	<u>TOTAL CAPITAL DANS LES USINES MUNICIPALES</u> Génération Transmission et distribution Généralités
114,295,501 349,583,739 349,382,493 201,246	6,549,800 30,443,056 29,897,000 546,056	1,565,678 12,792,105 - 12,792,105	2,293,085 4,184,534 246,465 3,938,069	1,067,462 1,082,065 1,011,773 70,292	Usines non-génératrices Usines génératrices Usines hydrauliques Usines à combustible
117,257,383 179,248 99,258,829 17,819,306	7,677,370 397,141 6,231,767 1,048,462	3,332,205 - 3,039,350 292,855	2,406,257 29,660 2,125,744 250,853	28,200,503 244,586 23,457,715 4,498,202	<u>TOTAL CAPITAL DANS LES USINES NON-GENERATRICES</u> Génération Transmission et distribution Généralités
459,701,446 276,043,027 161,213,853 22,444,566 459,476,744 224,702	70,710,116 43,590,851 24,070,501 3,048,764 69,774,253 935,863	23,631,932 13,259,124 8,971,410 1,401,398 - 23,631,932	27,461,886 12,777,183 12,784,383 1,900,320 20,217,778 7,244,108	92,441,490 61,091,336 22,606,936 8,743,218 91,687,139 754,351	<u>TOTAL CAPITAL DANS LES USINES GENERATRICES</u> Génération Transmission et distribution Généralités Usines hydrauliques Usines à combustible
255 250 317 312	153 144 191 178	163 163 193 193	203 179 247 217	187 173 231 214	<u>TOTAL CAPITAL</u> Moyenne par H.P. de la machinerie d'énergie primaire Moyenne par H.P. y compris machinerie auxiliaire Moyenne par Kv.A. de la capacité des dynamos Moyenne par Kv.A. y compris machinerie auxiliaire
120 120 122	81 80 131	80 - 80	77 110 40	88 88 75	<u>GENERATION</u> <u>Moyenne par H.P. y compris machinerie auxiliaire</u> Dans les usines génératrices Dans les usines hydrauliques Dans les usines à combustible

X - Capital engagé dans une usine hydraulique de la Saskatchewan inclus sous Manitoba.

TABLE 5 - REVENUE, 1940. (1)

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	166,228,773	343,850	6,157,997	4,201,245	61,736,652
For domestic service.....	46,444,357	172,643	1,877,812	1,413,237	9,634,398
For commercial light.....	27,482,439	105,452	1,105,599	646,899	8,037,531
For power (small).....	10,049,285	27,624	411,847	205,186	2,452,288
For power (large).....	77,307,238	18,921	2,562,150	1,812,330	40,360,959
For street lighting.....	4,945,454	19,210	200,589	123,593	1,251,476
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	99,887,052	275,013	3,935,194	2,405,737	60,104,949
Non-generating.....	7,605,852	2,449	1,519,167	451,181	144,319
Generating.....	92,281,200	272,564	2,416,027	1,954,556	59,960,630
Hydraulic.....	86,920,442	25,712	792,422	1,438,338	59,934,677
Fuel.....	5,360,758	246,852	1,623,605	516,218	25,953
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	66,341,721	68,837	2,222,803	1,795,508	1,631,703
Non-generating.....	18,949,529	-	408,621	403,175	586,232
Generating.....	47,392,192	68,837	1,814,182	1,392,333	1,045,371
Hydraulic.....	41,332,676	-	1,609,338	688,871	958,613
Fuel.....	6,059,516	68,837	204,844	703,462	86,758
Revenue of non-generating stations.....	26,555,381	2,449	1,927,788	854,356	730,651
Revenue of generating stations.....	139,673,392	341,401	4,230,209	3,346,889	61,006,001
Revenue of hydraulic stations.....	128,253,118	25,712	2,401,760	2,127,209	60,893,290
Revenue of fuel stations.....	11,420,274	315,689	1,828,449	1,219,680	112,711
Average revenue per H.P. of primary power.....	20.95	41.14	36.23	30.06	15.90
Average revenue per H.P. in main and auxiliary plants.....	20.44	40.34	33.68	29.51	15.75
Average revenue per Kv.A. of dynamo capacity.....	24.84	54.96	43.47	35.38	18.09
Average revenue per Kv.A. in main and auxiliary plants.....	24.24	54.54	40.38	34.78	17.92
Average revenue per kilowatt hour consumed..... Cents	.55	4.15	1.39	.89	.38
Average revenue per domestic service customer.....	27.41	33.03	25.45	27.88	21.32
Average revenue per commercial light customer.....	103.64	90.28	103.40	96.88	107.05
Average revenue per small power customer.....	232.96	222.77	194.54	203.15	231.76
Average revenue per large power customer.....	8,146.18	2,703.00	15,622.87	8,927.73	33,690.28
Average revenue per kilowatt hour - domestic and farm service..... Cents	1.91	5.61	4.34	4.81	2.97
Average revenue per kilowatt hour - commercial light..... Cents	2.28	5.03	4.26	3.23	2.70

† Affected by power purchased from another province.

X Adjusted for power purchased from Quebec plants.

(1) Gross revenues less cost of power interchanged between stations.



TABEAU 5 - RECETTES, 1940.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
67,968,174	8,790,666	5,421,115	6,102,875	15,861,411	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
20,928,097	3,423,312	2,093,205	2,275,091	4,626,562	Pour éclairage domestique
9,426,769	1,673,013	1,570,160	1,661,828	3,255,188	Pour éclairage commercial
4,365,938	391,944	720,446	811,787	662,225	Pour force motrice (petite)
31,115,654	3,064,770	745,269	1,090,603	6,891,794	Pour force motrice (grosse)
2,131,716	237,627	292,035	263,566	425,642	Pour éclairage des rues
11,161,152	4,425,619	2,055,778	2,853,114	14,988,502	<u>RECETTES DES USINES COMMERCIALES</u>
1,565,758	194,545	168,520	91,635	4,536,581	Non-génératrices
9,595,394	4,231,074	1,887,258	2,761,479	10,451,921	Génératrices
9,575,309	4,141,932	-	2,015,987	10,245,768	Hydrauliques
20,085	89,142	1,887,258	745,492	206,153	A combustible
56,607,022	4,365,047	3,365,337	3,249,761	872,909	<u>RECETTES DES USINES MUNICIPALES</u>
14,242,552	928,933	713,897	1,191,588	523,892	Non-génératrices
42,564,470	3,436,114	2,651,440	2,058,173	349,017	Génératrices
42,498,063	3,228,350	-	39,295	297,891	Hydrauliques
66,407	207,764	2,651,440	2,018,878	51,126	A combustible
15,808,310	1,123,478	882,417	1,283,223	5,060,473	Recettes des usines non-génératrices
52,159,864	7,667,188	4,538,698	4,819,652	10,800,938	Recettes des usines génératrices
52,073,372	7,370,282	-	2,055,282	10,543,659	Recettes des usines hydrauliques
86,492	296,906	4,538,698	2,764,370	257,279	Recettes des usines à combustible
X 21.44	17.15	32.78	41.39	24.56	Moyenne de recettes par H.P. de machinerie primaire
X 21.16	16.17	32.78	36.60	22.79	Moyenne de recettes par H.P. de machinerie principale et
X 27.25	21.37	38.89	50.51	30.35	Moyenne de recettes par Kv.A. de capacité auxiliaire de dynamos
X 26.88	19.98	38.89	44.25	28.18	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
.52	.50	3.08	2.22	.74	Moyenne de recettes par Kw. heure .....(cents)
28.08	41.04	40.70	32.78	28.34	Moyenne de recettes par abonnés d'éclairage domestique
100.09	95.72	102.16	99.42	117.04	Moyenne de recettes par abonnés d'éclairage commercial
328.02	117.52	256.48	152.36	146.38	Moyenne de recettes par abonnés pour petite force motrice
X 8,527.17	976.35	6,059.10	3,021.06	10,668.41	Moyenne de recettes par abonnés pour grosse force motrice
1.43	1.04	4.82	5.04	2.91	Moyenne de recettes par Kw. heure - service domestique et de ferme (cents)
1.55	1.98	5.28	4.51	3.21	Moyenne de recettes par Kw. heure - service commercial (cents)

+ Affecté par énergie achetée d'une autre province.

X Adjusté pour achats de courant des usines du Québec.

(1) Revenu brut moins le coût de l'énergie échangée entre stations.

TABLE 6 - EXPENSES, 1940.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<b>TOTAL EXPENSES</b> .....	105,044,152	160,532	4,301,463	2,268,428	26,993,229
Per cent of total for Canada.....	100.00	0.15	4.10	2.16	25.70
Salaries and wages.....	28,895,595	73,859	1,171,703	609,208	7,223,447
Fuel.....	2,448,016	60,676	711,546	306,951	37,306
Taxes (X).....	18,832,348	24,788	725,182	215,614	11,475,885
Cost of power.....	54,868,199	1,200	1,693,032	1,136,655	8,257,191
<b>TOTAL FOR COMMERCIAL STATIONS</b> .....	51,990,160	139,047	3,312,135	1,118,514	26,309,805
Salaries and wages.....	14,133,544	64,929	848,585	285,670	6,947,605
Fuel.....	1,397,615	48,130	676,370	127,590	6,912
Taxes.....	17,548,124	24,788	710,450	215,349	11,462,120
Cost of power.....	18,910,877	1,200	1,076,730	489,905	7,893,168
Non-generating stations.....	10,668,388	1,210	1,986,470	693,235	84,476
Generating stations.....	41,321,772	137,837	1,325,665	425,279	26,225,329
Hydraulic stations.....	38,389,783	11,234	253,800	165,882	26,208,151
Fuel stations.....	2,931,989	126,603	1,071,865	259,397	17,178
<b>TOTAL FOR MUNICIPAL STATIONS</b> .....	53,052,998	21,476	989,328	1,149,914	684,024
Salaries and wages.....	14,762,051	8,930	323,118	323,538	275,842
Fuel.....	1,050,401	12,546	35,176	179,361	30,394
Taxes.....	1,284,224	-	14,732	265	13,765
Cost of power.....	35,957,322	-	616,302	646,750	364,023
Non-generating stations.....	33,623,009	-	665,522	434,902	423,262
Generating stations.....	19,430,989	21,476	323,806	715,012	260,762
Hydraulic stations.....	17,110,950	-	176,777	449,674	220,807
Fuel stations.....	2,320,039	21,476	147,029	265,338	39,955
<b>TOTAL EXPENSES FOR NON-GENERATING STATIONS</b> .....	44,291,397	1,210	2,651,992	1,128,137	507,738
Salaries and wages.....	8,121,635	-	627,186	212,199	148,730
Fuel.....	78,862	-	74,948	-	-
Taxes.....	2,061,713	10	495,608	92,105	4,287
Cost of power.....	34,029,187	1,200	1,454,250	823,833	354,721
<b>TOTAL EXPENSES FOR GENERATING STATIONS</b> .....	60,752,761	159,313	1,649,471	1,140,291	26,486,091
Salaries and wages.....	20,773,960	73,859	544,517	397,009	7,074,717
Fuel.....	2,369,154	60,676	636,598	306,951	37,306
Taxes.....	16,770,635	24,778	229,574	123,509	11,471,598
Cost of power.....	20,839,012	-	238,782	312,822	7,902,470
Hydraulic stations.....	55,500,733	11,234	430,577	615,556	26,428,958
Fuel stations.....	5,252,028	148,079	1,218,894	524,735	57,133

(X) Federal sales tax not included ..... 3,910,994 11,393 160,482 104,463 864,204

† Includes only the four items listed.

TABEAU 6 -<sup>\*</sup> DÉPENSES, 1940.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
53,443,146	2,637,906	2,809,071	2,771,439	9,658,353	<u>TOTAL DES DÉPENSES</u>
50.88	2.51	2.67	2.64	9.19	Pourcentage du total pour le Canada
13,073,514	1,890,137	938,418	1,030,830	2,884,479	Salaires et gages
23,471	76,236	829,929	265,308	136,593	Combustible
2,613,908	217,814	290,440	613,097	2,655,620	Taxes
37,732,253	453,719	750,284	862,204	3,981,661	Achat d'énergie électrique
8,655,504	1,170,421	1,047,347	1,008,525	9,228,862	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,616,007	755,618	381,387	494,200	2,739,543	Salaires et gages
6,999	15,828	311,840	77,545	126,401	Combustible
1,751,937	126,871	238,551	362,438	2,655,620	Taxes
5,280,561	272,104	115,569	74,342	3,707,298	Achat d'énergie électrique
2,313,356	291,848	108,111	48,056	5,141,626	Usines non-génératrices
6,342,148	878,573	939,236	960,469	4,087,236	Usines génératrices
6,337,817	829,968	-	606,380	3,976,551	Usines hydrauliques
4,331	48,605	939,236	354,089	110,685	Usines à combustible
44,787,642	1,467,485	1,761,724	1,762,914	429,491	<u>TOTAL POUR LES USINES MUNICIPALES</u>
11,457,507	1,134,519	557,031	536,630	144,936	Salaires et gages
16,472	60,408	518,089	197,763	10,192	Combustible
861,971	90,943	51,889	250,659	-	Taxes
32,451,692	181,615	634,715	787,862	274,363	Achat d'énergie électrique
29,609,999	321,943	724,614	1,088,206	354,561	Usines non-génératrices
15,177,643	1,145,542	1,037,110	674,708	74,930	Usines génératrices
15,147,593	1,048,687	-	10,836	56,576	Usines hydrauliques
30,050	96,855	1,037,110	663,872	18,354	Usines à combustible
31,923,355	613,791	832,725	1,136,262	5,496,187	<u>TOTAL DES DÉPENSES DES USINES NON-GÉNÉRATRICES</u>
5,426,827	156,187	112,499	230,925	1,207,082	Salaires et gages
2,549	41	-	472	852	Combustible
271,422	14,719	55,018	81,614	1,046,930	Taxes
26,222,557	442,844	665,208	823,251	3,241,323	Achat d'énergie électrique
21,519,791	2,024,115	1,976,346	1,635,177	4,162,166	<u>TOTAL DES DÉPENSES DES USINES GÉNÉRATRICES</u>
7,646,687	1,733,950	825,919	799,905	1,677,397	Salaires et gages
20,922	76,195	829,929	264,836	135,741	Combustible
2,342,486	203,095	235,422	531,483	1,608,690	Taxes
11,509,696	10,875	85,076	38,953	740,338	Achat d'énergie électrique
21,485,410	1,878,655	-	617,216	4,033,127	Usines hydrauliques
34,381	145,460	1,976,346	1,017,961	129,039	Usines à combustible

1,686,614      296,354      182,923      189,954      414,601 ..... Taxe fédérale des ventes non comprises. (X)

\* Ne comprend que les quatre item énumérés.



TABLE 7 - EMPLOYEES, 1940.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	19,054	68	1,002	532	4,912
Per cent of total for Canada.....	100.00	0.36	5.26	2.79	25.78
Officers, clerks, other salaried employees, etc.	7,675	33	361	249	1,568
Employees on wages.....	11,379	35	641	284	3,344
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	9,584	58	682	251	4,668
Officers, clerks, other salaried employees, etc.	3,308	23	209	100	1,461
Employees on wages.....	6,276	35	473	151	3,207
Non-generating.....	1,305	-	365	105	22
Generating.....	8,279	58	317	146	4,646
Hydraulic.....	7,535	10	173	68	4,636
Fuel.....	744	48	144	78	10
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	9,470	10	320	281	244
Officers, clerks, other salaried employees, etc.	4,367	10	152	148	107
Employees on wages.....	5,103	-	168	133	137
Non-generating.....	4,323	-	98	88	95
Generating.....	5,147	10	222	193	149
Hydraulic.....	4,464	-	170	134	140
Fuel.....	683	10	52	59	9
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	5,628	-	463	193	117
Officers, clerks, other salaried employees, etc.	2,993	-	206	117	59
Employees on wages.....	2,635	-	257	76	58
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	13,426	68	539	339	4,795
Officers, clerks, other salaried employees, etc.	4,682	33	155	131	1,509
Employees on wages.....	8,744	35	384	208	3,286
Hydraulic.....	11,999	10	343	202	4,776
Fuel.....	1,427	58	196	137	19

TABEAU 7 - EMPLOYES, 1940.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
7,960	1,381	629	655	1,895	<u>TOTAL DU PERSONNEL OCCUPE</u>
41.88	7.25	3.30	3.44	9.94	Pourcentage du total pour le Canada
3,215	884	273	298	795	Administrateurs, directeurs, commis et tous employés des bureaux
4,765	497	356	357	1,100	Ouvriers et journaliers
1,057	491	283	301	1,793	<u>PERSONNEL DES USINES COMMERCIALES</u>
288	194	124	158	751	Administrateurs, directeurs, commis et tous employés des bureaux
769	297	159	143	1,042	Ouvriers et journaliers
45	13	15	10	730	Non-génératrices
1,012	478	268	291	1,063	Génératrices
1,010	459	-	159	1,020	Hydrauliques
2	19	268	132	43	Combustible
6,923	890	346	354	102	<u>PERSONNEL DES USINES MUNICIPALES</u>
2,927	690	149	140	44	Administrateurs, directeurs, commis et tous employés des bureaux
3,996	200	197	214	58	Ouvriers et journaliers
3,553	225	60	145	59	Non-génératrices
3,370	665	286	209	43	Génératrices
3,357	620	-	7	36	Hydrauliques
13	45	286	202	7	Combustible
3,598	238	75	155	789	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,841	158	43	91	478	Administrateurs, directeurs, commis et tous employés des bureaux
1,757	80	32	64	311	Ouvriers et journaliers
4,382	1,143	554	500	1,106	<u>PERSONNEL DES USINES GENERATRICES</u>
1,374	726	230	207	317	Administrateurs, directeurs, commis et tous employés des bureaux
3,008	417	324	293	789	Ouvriers et journaliers
4,367	1,079	-	166	1,056	Hydrauliques
15	64	554	334	50	Combustible

TABLE 8 - NUMBER OF CUSTOMERS, 1940.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>NUMBER OF CUSTOMERS</b> .....	2,014,508	6,538	86,852	58,608	539,414
Per cent of total for Canada.....	100.00	0.32	4.31	2.91	26.77
Domestic service.....	1,694,388	5,227	73,790	50,681	451,791
Commercial light.....	265,175	1,168	10,692	6,677	75,079
Power (small).....	43,138	124	2,117	1,010	10,581
Power (large).....	9,490	7	164	203	1,198
Street lighting.....	2,317	12	89	37	765
<b>COMMERCIAL STATIONS</b> .....	926,093	5,337	57,322	24,873	497,331
Domestic service.....	762,080	4,313	49,109	20,375	415,069
Commercial light.....	138,244	931	6,743	3,734	70,727
Power (small).....	20,659	77	1,342	682	9,692
Power (large).....	3,764	6	88	63	1,111
Street lighting.....	1,346	10	40	19	732
Non-generating.....	207,810	129	45,017	16,278	4,339
Generating.....	718,283	5,208	12,305	8,595	492,992
Hydraulic.....	661,596	752	8,452	627	492,541
Fuel.....	56,687	4,456	3,853	7,968	451
<b>MUNICIPAL STATIONS</b> .....	1,088,415	1,201	29,530	33,735	42,083
Domestic service.....	932,308	914	24,681	30,306	36,722
Commercial light.....	126,931	237	3,949	2,943	4,352
Power (small).....	22,479	47	775	328	889
Power (large).....	5,726	1	76	140	87
Street lighting.....	971	2	49	18	33
Non-generating.....	774,265	-	19,297	14,572	21,052
Generating.....	314,150	1,201	10,233	19,163	21,031
Hydraulic.....	235,529	-	5,397	12,247	19,900
Fuel.....	78,621	1,201	4,836	6,916	1,131
<b>NON-GENERATING STATIONS</b> .....	982,075	129	64,314	30,850	25,391
Domestic service.....	828,777	86	54,868	26,106	21,856
Commercial light.....	128,297	33	7,680	4,082	2,912
Power (small).....	20,591	9	1,631	506	556
Power (large).....	3,699	-	83	133	18
Street lighting.....	711	1	52	23	49
<b>GENERATING STATIONS</b> .....	1,032,433	6,409	22,538	27,758	514,023
Hydraulic stations.....	897,125	752	13,849	12,874	512,441
Domestic service.....	762,273	639	11,694	11,664	428,811
Commercial light.....	110,833	109	1,790	874	71,734
Power (small).....	17,521	-	283	100	10,006
Power (large).....	5,313	1	56	28	1,177
Street lighting.....	1,185	3	26	8	713
<b>Fuel Stations</b> .....	135,308	5,657	8,689	14,884	1,582
Domestic service.....	103,338	4,502	7,228	12,711	1,124
Commercial light.....	26,045	1,026	1,222	1,721	433
Power (small).....	5,026	115	203	404	19
Power (large).....	478	6	25	42	3
Street lighting.....	421	8	11	6	3
<b>Average number of domestic service customers per 100 of population</b> .....	14.88	5.56	13.13	11.21	13.87



TABLEAU 8 - NOMBRE D'USAGERS, 1940.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
857,137	107,535	70,055	92,008	196,361	<u>NOMBRE D'USAGERS</u>
42.55	5.34	3.48	4.57	9.75	Pourcentage du total pour le Canada
745,396	83,404	51,425	69,397	163,277	Service domestique
94,182	17,479	15,370	16,716	27,812	Eclairage commercial
13,310	3,335	2,809	5,328	4,524	Force motrice (petite)
3,649	3,139	123	361	646	Force motrice (grosse)
600	178	328	206	102	Eclairage des rues
75,391	32,722	26,785	30,056	176,276	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
63,691	23,766	18,902	20,015	146,840	Service domestique
10,097	7,113	6,545	7,545	24,809	Eclairage commercial
1,160	418	1,122	2,236	3,930	Force motrice (petite)
369	1,403	42	71	611	Force motrice (grosse)
74	22	174	189	86	Eclairage des rues
5,441	7,842	2,871	2,151	123,742	Non-génératrices
69,950	24,880	23,914	27,905	52,534	Génératrices
69,630	23,282	-	15,883	50,429	Hydrauliques
320	1,598	23,914	12,022	2,105	Combustible
781,746	74,813	43,270	61,952	20,085	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
681,705	59,638	32,523	49,382	16,437	Service domestique
84,085	10,366	8,825	9,171	3,003	Eclairage commercial
12,150	2,917	1,687	3,092	594	Force motrice (petite)
3,280	1,736	81	290	35	Force motrice (grosse)
526	156	154	17	16	Eclairage des rues
639,270	20,024	15,658	29,509	14,883	Non-génératrices
142,476	54,789	27,612	32,443	5,202	Génératrices
141,243	51,474	-	800	4,468	Hydrauliques
1,233	3,315	27,612	31,643	734	Combustible
644,711	27,866	18,529	31,660	138,625	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
548,417	22,225	13,754	25,291	116,174	Service domestique
81,918	4,378	3,734	4,490	19,070	Eclairage commercial
11,289	909	937	1,807	2,947	Force motrice (petite)
2,770	205	48	57	385	Force motrice (grosse)
317	149	56	15	49	Eclairage des rues
212,426	79,669	51,526	60,348	57,736	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
210,873	74,756	-	16,683	54,897	<u>Usines hydrauliques</u>
195,682	57,599	-	10,951	45,033	Service domestique
12,087	12,043	-	4,138	8,058	Eclairage commercial
1,949	2,321	-	1,448	1,514	Force motrice (petite)
876	2,883	-	39	253	Force motrice (grosse)
279	10	-	107	39	Eclairage des rues
1,553	4,913	51,526	43,665	2,839	<u>Usines à combustible</u>
1,297	3,580	37,671	33,155	2,070	Service domestique
177	1,058	11,636	8,088	684	Eclairage commercial
72	205	1,872	2,073	63	Force motrice (petite)
3	51	75	265	8	Force motrice (grosse)
4	19	272	84	14	Eclairage des rues
19.81	11.46	5.53	8.67	20.44	Moyenne de consommateurs d'éclairage électrique par 100 habitants

TABLE 9 - POLE LINE MILEAGE, 1940.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	75,050	288	3,973	3,190	14,104
Per cent of total for Canada.....	100.00	0.38	5.29	4.25	18.79
Miles of steel towers.....	4,835	-	21	215	1,214
Miles of steel poles.....	289	-	1	-	238
Miles of wooden poles.....	67,333	285	3,940	2,971	11,919
Miles of concrete poles.....	561	-	-	1	-
Miles of underground and submarine cables.....	1,972	3	11	3	733
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	30,933	264	1,955	699	13,569
Non-generating.....	4,984	10	825	317	286
Generating.....	25,949	254	1,130	382	13,283
Hydraulic.....	23,201	53	926	180	13,270
Fuel.....	2,748	201	204	202	13
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	44,117	24	2,018	2,491	535
Non-generating.....	10,390	-	461	179	170
Generating.....	33,727	24	1,557	2,313	365
Hydraulic.....	29,818	-	1,143	1,338	345
Fuel.....	3,909	24	414	975	20
<u>TOTAL POLE LINE MILEAGE - NON GENERATING STATIONS</u> .....	15,374	10	1,286	495	456
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	59,676	278	2,687	2,695	13,649
Hydraulic.....	53,019	53	2,069	1,518	13,615
Fuel.....	6,657	225	618	1,177	33

TABLE 10 - AUXILIARY PLANT EQUIPMENT, 1940.

<u>TOTAL PRIMARY POWER</u> .....H.P.	194,914	165	12,893	2,725	36,644
Per cent of total for Canada.....	100.00	0.08	6.62	1.40	18.80
Steam reciprocating engines.....No.	29	1	9	2	-
Total capacity.....H.P.	12,166	75	3,913	800	-
Steam turbines.....No.	45	-	3	3	8
Total capacity.....H.P.	172,604	-	7,390	1,925	36,224
Gas and oil engines.....No.	51	2	7	-	4
Total capacity.....H.P.	10,144	90	1,590	-	420
<u>TOTAL SECONDARY POWER</u> .....Kv.A.	166,367	48	10,839	2,035	33,375
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> .....H.P.	131,050	165	12,230	2,725	25,608
Steam reciprocating engines.....No.	19	1	7	2	-
Total capacity.....H.P.	7,768	75	3,490	800	-
Steam turbines.....No.	36	-	3	3	6
Total capacity.....H.P.	115,740	-	7,390	1,925	25,500
Gas and oil engines.....No.	35	2	4	-	3
Total capacity.....H.P.	7,542	90	1,350	-	108
<u>TOTAL SECONDARY POWER</u> .....Kv.A.	110,252	48	10,303	2,035	23,125
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> .....H.P.	63,864	-	663	-	11,036
Steam reciprocating engines.....No.	10	-	2	-	-
Total capacity.....H.P.	4,398	-	423	-	2
Steam turbines.....No.	9	-	-	-	-
Total capacity.....H.P.	56,864	-	-	-	10,724
Gas and oil engines.....No.	16	-	3	-	1
Total capacity.....H.P.	2,602	-	240	-	312
<u>TOTAL SECONDARY POWER</u> .....Kv.A.	56,109	-	536	-	10,250

TABLEAU 9 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1940.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
35,530	4,088	4,028	4,262	5,587	<u>LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX</u>
47.34	5.45	5.37	5.68	7.45	Pourcentage du total pour tout le Canada
2,632	743	-	31	39	Milles de pylones d'acier
50	-	-	-	-	Milles de poteaux d'acier
31,292	3,310	4,003	4,161	5,452	Milles de poteaux de bois
560	-	-	-	-	Milles de poteaux de ciment
996	35	25	70	96	Milles de câbles souterrains et sous-marins
2,659	1,435	1,856	3,375	5,121	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
220	215	746	43	2,322	Non-génératrices
2,439	1,220	1,110	3,332	2,799	Génératrices
2,426	1,141	-	2,471	2,734	Hydrauliques
13	79	1,110	861	65	A combustible
32,871	2,653	2,172	887	466	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
6,882	1,755	206	430	308	Non-génératrices
25,989	898	1,966	457	158	Génératrices
25,961	857	-	35	139	Hydrauliques
28	41	1,966	422	19	A combustible
7,102	1,970	952	473	2,630	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
28,428	2,118	3,076	3,789	2,957	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GENERATRICES</u>
28,387	1,998	-	2,506	2,873	Hydrauliques
41	120	3,076	1,283	84	A combustible

TABLEAU 10 - OUTILLAGE AUXILIAIRE, 1940

41,775	31,090	-	19,323	50,299	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
21.43	15.95	-	9.91	25.81	Pourcentage du total pour tout le Canada
5	1	-	7	4	Machines à vapeur, à mouvement alternatif.....Nomb.
1,700	1,750	-	2,753	1,175	Capacité totale.....H.P.
5	7	-	4	15	Turbines à vapeur.....Nomb.
38,500	28,490	-	15,000	45,075	Capacité totale.....H.P.
4	7	-	10	17	Moteurs à gaz et à pétrole.....Nomb.
1,575	850	-	1,570	4,049	Capacité totale.....H.P.
33,947	28,711	-	17,097	40,315	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....Kv.A.
10,575	12,000	-	18,963	48,764	<u>USINES COMMERCIALES</u>
-	-	-	7	2	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
-	-	-	2,753	650	Machines à vapeur, à mouvement alternatif.....Nomb.
3	3	-	4	14	Capacité totale.....H.P.
9,000	12,000	-	15,000	44,925	Turbines à vapeur.....Nomb.
4	-	-	7	15	Capacité totale.....H.P.
1,575	-	-	1,210	3,209	Moteurs à gaz et à pétrole.....Nomb.
					Capacité totale.....H.P.
7,657	11,250	-	16,662	39,178	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....Kv.A.
31,200	19,090	-	360	1,515	<u>USINES MUNICIPALES</u>
5	1	-	-	2	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
1,700	1,750	-	-	525	Machines à vapeur, à mouvement alternatif.....Nomb.
2	4	-	-	1	Capacité totale.....H.P.
29,500	16,490	-	-	150	Turbines à vapeur.....Nomb.
-	7	-	3	2	Capacité totale.....H.P.
-	850	-	360	840	Moteurs à gaz et à pétrole.....Nomb.
					Capacité totale.....H.P.
26,290	17,461	-	435	1,137	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....Kv.A.



TABLE 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1940.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.	8,130,781	8,524	182,844	142,393	3,919,899
Per cent of total for Canada.....	100.00	0.11	2.25	1.75	48.21
Water wheels and turbines..... No.	836	7	57	16	271
Total capacity..... H.P.	7,567,088	392	102,990	105,760	3,880,505
Steam reciprocating engines..... No.	68	1	11	7	-
Total capacity..... H.P.	22,521	75	4,488	3,980	-
Steam turbines..... No.	115	4	17	9	9
Total capacity..... H.P.	493,812	6,680	72,903	32,005	36,374
Gas and oil engines..... No.	481	10	21	4	11
Total capacity..... H.P.	47,360	1,377	2,463	638	3,020
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	6,857,578	6,304	152,498	120,782	3,445,570
Per cent of total for Canada.....	100.00	0.09	2.22	1.76	50.25
Dynamos, A.C..... No.	1,262	19	102	34	285
Total capacity..... Kv.A.	6,851,785	6,304	152,158	119,932	3,445,544
Dynamos, D.C..... No.	212	-	2	2	2
Total capacity..... Kw.	5,793	-	340	850	26
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	5,839,714	7,289	97,544	112,865	3,875,633
Water wheels and turbines..... No.	552	7	19	10	245
Total capacity..... H.P.	5,544,803	392	21,740	92,900	3,849,795
Steam reciprocating engines..... No.	41	1	9	7	-
Total capacity..... H.P.	13,470	75	4,065	3,980	-
Steam turbines..... No.	71	4	14	6	7
Total capacity..... H.P.	254,020	6,680	70,245	15,625	25,650
Gas and oil engines..... No.	359	4	6	1	5
Total capacity..... H.P.	27,421	142	1,494	360	188
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	5,016,526	5,287	82,694	96,216	3,409,795
Dynamos, A.C..... No.	812	13	44	22	251
Total capacity..... Kv.A.	5,012,241	5,287	82,354	95,366	3,409,769
Dynamos, D.C..... No.	188	-	2	2	2
Total capacity..... Kw.	4,285	-	340	850	26
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	2,291,067	1,235	85,300	29,518	44,266
Water wheels and turbines..... No.	284	-	38	6	26
Total capacity..... H.P.	2,022,285	-	81,250	12,860	30,710
Steam reciprocating engines..... No.	27	-	2	-	-
Total capacity..... H.P.	9,051	-	423	-	-
Steam turbines..... No.	44	-	3	3	2
Total capacity..... H.P.	239,792	-	2,658	16,380	10,724
Gas and oil engines..... No.	122	6	15	3	6
Total capacity..... H.P.	19,939	1,235	969	278	2,832
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	1,841,052	1,017	69,804	24,566	35,775
Dynamos, A.C..... No.	450	6	58	12	34
Total capacity..... Kv.A.	1,839,544	1,017	69,804	24,566	35,775
Dynamos, D.C..... No.	24	-	-	-	-
Total capacity..... Kw.	1,508	-	-	-	-

TABLEAU 11 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1940.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,305,229	543,726	165,387	166,754	696,035	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H. P.
28.35	6.69	2.03	2.05	8.56	Pourcentage du total pour le Canada
348	43	-	11	83	Turbines et roues hydrauliques..... Nomb.
2,262,164	508,300	-	69,140	637,837	Capacité totale..... H. P.
13	5	2	20	9	Machines à vapeur, à mouvement alternatif..... Nomb.
2,050	2,303	1,150	6,831	1,644	Capacité totale..... H. P.
5	9	25	19	18	Turbines à vapeur..... Nomb.
38,500	29,740	142,300	85,395	49,915	Capacité totale..... H. P.
11	39	234	104	47	Moteurs à gaz et à pétrole..... Nomb.
2,515	3,383	21,937	5,388	6,639	Capacité totale..... H. P.
1,852,156	440,021	139,383	137,930	562,934	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
27.01	6.42	2.03	2.01	8.21	Pourcentage du total pour le Canada
372	93	124	84	149	Dynamos, C.A..... Nomb.
1,852,111	439,985	137,864	135,103	562,784	Capacité totale..... Kv.A.
2	3	131	64	6	Dynamos, C.D..... Nomb.
45	36	1,519	2,827	150	Capacité totale..... Kw.
541,219	366,721	57,159	97,514	683,770	<u>USINES COMMERCIALES</u>
165	23	-	9	74	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H. P.
530,429	353,300	-	68,180	628,067	Turbines et roues hydrauliques..... Nomb.
4	-	-	15	5	Capacité totale..... H. P.
165	-	-	4,121	1,064	Machines à vapeur, à mouvement alternatif..... Nomb.
3	3	11	6	17	Capacité totale..... H. P.
9,000	12,000	44,755	20,300	49,765	Turbines à vapeur..... Nomb.
5	23	176	98	41	Capacité totale..... H. P.
1,625	1,421	12,404	4,913	4,874	Moteurs à gaz et à pétrole..... Nomb.
					Capacité totale..... H. P.
454,012	290,490	46,913	76,987	554,132	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
174	46	70	62	130	Dynamos, C.A..... Nomb.
454,002	290,454	45,692	75,335	553,982	Capacité totale..... Kv.A.
1	3	111	61	6	Dynamos, C.D..... Nomb.
10	36	1,221	1,652	150	Capacité totale..... Kw.
1,764,010	177,005	108,228	69,240	12,265	<u>USINES MUNICIPALES</u>
183	20	-	2	9	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H. P.
1,731,735	155,000	-	960	9,770	Turbines et roues hydrauliques..... Nomb.
9	5	2	5	4	Capacité totale..... H. P.
1,885	2,303	1,150	2,710	580	Machines à vapeur, à mouvement alternatif..... Nomb.
2	6	14	13	1	Capacité totale..... H. P.
29,500	17,740	97,545	65,095	150	Turbines à vapeur..... Nomb.
6	16	58	6	6	Capacité totale..... H. P.
890	1,962	9,533	475	1,765	Moteurs à gaz et à pétrole..... Nomb.
					Capacité totale..... H. P.
1,398,144	149,531	92,470	60,943	8,802	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
198	47	54	22	19	Dynamos, C.A..... Nomb.
1,398,109	149,531	92,172	59,768	8,802	Capacité totale..... Kv.A.
1	-	20	3	-	Dynamos, C.D..... Nomb.
35	-	298	1,175	-	Capacité totale..... Kw.

TABLE 12 - MAIN PLANT EQUIPMENT, 1940.

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER..... H.P.</b>	7,935,867	8,359	169,951	139,658	3,883,255
Per cent of total for Canada.....	100.00	0.11	2.14	1.76	48.83
Water wheels and turbines..... No.	836	7	57	16	271
Total capacity..... H.P.	7,567,088	392	102,990	105,760	3,880,505
Steam reciprocating engines..... No.	39	-	2	5	-
Total capacity..... H.P.	10,355	-	575	3,180	-
Steam turbines..... No.	70	4	14	6	1
Total capacity..... H.P.	321,208	6,680	65,513	30,080	150
Gas and oil engines..... No.	430	9	14	4	7
Total capacity..... H.P.	37,216	1,287	273	639	2,600
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	6,691,211	6,256	141,659	118,747	3,412,195
Per cent of total for Canada.....	100.00	0.09	2.12	1.77	51.00
Dynamos, A.C..... No.	1,150	18	86	39	276
Total capacity..... Kv.A.	6,686,818	6,256	141,619	117,897	3,412,189
Dynamos, D.C..... No.	209	-	1	2	2
Total capacity..... Kw.	4,393	-	40	950	36
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER..... H.P.</b>	5,708,654	7,124	85,314	110,140	3,850,025
Per cent of total for Canada.....	100.00	0.13	1.49	1.93	67.44
Water wheels and turbines..... No.	552	7	19	10	245
Total capacity..... H.P.	5,544,803	392	21,740	92,900	3,849,795
Steam reciprocating engines..... No.	22	-	2	5	-
Total capacity..... H.P.	5,702	-	575	3,180	-
Steam turbines..... No.	35	4	11	3	1
Total capacity..... H.P.	138,280	6,680	62,855	13,700	150
Gas and oil engines..... No.	324	2	2	1	2
Total capacity..... H.P.	19,879	52	144	360	80
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	4,906,268	5,239	72,391	94,181	3,366,570
Per cent of total for Canada.....	100.00	0.11	1.47	1.92	69.03
Dynamos, A.C..... No.	734	12	33	17	245
Total capacity..... Kv.A.	4,903,383	5,239	72,351	93,831	3,366,644
Dynamos, D.C..... No.	185	-	1	2	2
Total capacity..... Kw.	2,885	-	40	850	26
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER..... H.P.</b>	2,227,203	1,235	84,637	29,518	33,230
Per cent of total for Canada.....	100.00	0.06	3.80	1.33	1.49
Water wheels and turbines..... No.	284	-	38	6	26
Total capacity..... H.P.	2,022,285	-	81,250	12,860	30,710
Steam reciprocating engines..... No.	17	-	-	-	-
Total capacity..... H.P.	4,653	-	-	-	-
Steam turbines..... No.	35	-	3	3	-
Total capacity..... H.P.	182,928	-	2,658	16,380	-
Gas and oil engines..... No.	106	6	12	3	5
Total capacity..... H.P.	17,337	1,235	729	278	2,520
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	1,784,943	1,017	69,268	24,566	25,525
Per cent of total for Canada.....	100.00	0.06	3.88	1.37	1.43
Dynamos, A.C..... No.	416	6	53	12	31
Total capacity..... Kv.A.	1,783,435	1,017	69,268	24,566	25,525
Dynamos, D.C..... No.	24	-	-	-	-
Total capacity..... Kw.	1,508	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	6,376,753	359	83,094	91,238	3,409,905
Per cent of total for Canada.....	100.00	0.01	1.30	1.43	53.47
Dynamos, A.C..... No.	829	6	57	15	269
Total capacity..... Kv.A.	6,376,457	359	83,094	91,039	3,409,880
Dynamos, D.C..... No.	5	-	-	1	2
Total capacity..... Kw.	296	-	-	200	26
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY..... Kv.A.</b>	314,458	5,897	58,575	27,509	2,289
Per cent of total for Canada.....	100.00	1.87	18.63	8.75	0.73
Dynamos, A.C..... No.	321	12	29	14	8
Total capacity..... Kv.A.	310,361	5,897	58,535	26,859	2,289
Dynamos, D.C..... No.	204	-	1	1	-
Total capacity..... Kw.	4,097	-	40	650	-

I - Capacity of one hydraulic station in Saskatchewan included in Manitoba.



TABLEAU 12 - OUTILLAGE DES USINES PRINCIPALES, 1940.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,263,454	X 512,656	165,387	147,431	645,736	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
28.52	6.46	2.08	1.86	8.14	Pourcentage du total pour le Canada.....
348	43	-	11	83	Roues hydrauliques et turbines.....Nomb.
2,262,164	508,300	-	69,140	637,837	Capacité totale.....H.P.
8	4	2	13	5	Machines à vapeur, à mouvement alternatif.....Nomb.
350	553	1,150	4,078	469	Capacité totale.....H.P.
-	2	25	15	3	Turbines à vapeur.....Nomb.
-	1,250	142,300	70,395	4,840	Capacité totale.....H.P.
7	32	234	94	30	Moteurs à gaz et à pétrole.....Nomb.
940	2,533	21,937	3,818	2,590	Capacité totale.....H.P.
1,818,209	411,310	139,383	120,833	522,619	<u>CAPACITE DES DYNAMOS</u> .....Kv.A.
27.17	6.15	2.08	1.81	7.91	Pourcentage du total pour le Canada.....
359	78	124	65	115	Dynamos, C.A.....Nomb.
1,818,164	411,274	137,864	119,106	522,469	Capacité totale.....Kv.A.
2	3	131	62	6	Dynamos, C.D.....Nomb.
45	36	1,519	1,727	150	Capacité totale.....Kv.
530,644	354,721	57,159	78,551	634,996	<u>USINES COMMERCIALES</u>
9.30	6.21	1.00	1.38	11.12	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
165	23	-	9	74	Pourcentage du total pour le Canada.....
530,429	353,300	-	68,180	628,067	Turbines et roues hydrauliques.....Nomb.
4	-	-	8	3	Capacité totale.....H.P.
165	-	-	1,368	414	Machines à vapeur, à mouvement alternatif.....Nomb.
-	-	11	2	3	Capacité totale.....H.P.
-	-	44,755	5,300	4,840	Turbines à vapeur.....Nomb.
1	23	176	91	26	Capacité totale.....H.P.
50	1,421	12,404	3,703	1,665	Moteurs à gaz et à pétrole.....Nomb.
446,355	279,240	46,913	60,325	514,954	Capacité totale.....H.P.
9.10	5.69	0.96	1.23	10.49	<u>CAPACITE DES DYNAMOS</u> .....Kv.A.
168	43	70	46	100	Pourcentage du total pour le Canada.....
446,345	279,204	45,692	59,773	514,804	Dynamos, C.A.....Nomb.
1	3	111	59	6	Capacité totale.....Kv.A.
10	36	1,221	552	150	Dynamos, C.D.....Nomb.
1,732,810	157,915	108,228	68,880	10,750	Capacité totale.....Kv.
77.80	7.09	4.86	3.09	0.48	<u>USINES MUNICIPALES</u>
183	20	-	2	9	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
1,731,735	155,000	-	960	9,770	Pourcentage du total pour le Canada.....
4	4	2	5	2	Turbines et roues hydrauliques.....Nomb.
185	553	1,150	2,710	55	Capacité totale.....H.P.
-	2	14	13	-	Machines à vapeur, à mouvement alternatif.....Nomb.
-	1,250	97,545	65,095	-	Capacité totale.....H.P.
6	9	58	3	4	Turbines à vapeur.....Nomb.
890	1,112	9,533	115	925	Capacité totale.....H.P.
1,371,854	132,070	92,470	60,508	7,665	Moteurs à gaz et à pétrole.....Nomb.
76.86	7.40	5.18	3.39	0.43	Capacité totale.....H.P.
191	35	54	19	15	<u>CAPACITE DES DYNAMOS</u> .....Kv.A.
1,371,819	132,070	92,172	59,333	7,665	Pourcentage du total pour le Canada.....
1	-	20	3	-	Dynamos, C.A.....Nomb.
35	-	298	1,175	-	Capacité totale.....Kv.A.
1,817,237	407,600	-	52,450	514,879	Dynamos, C.D.....Nomb.
28.50	6.39	-	0.82	8.08	Capacité totale.....Kv.
346	43	-	11	83	<u>USINES HYDRAULIQUES</u>
1,817,237	407,600	-	52,450	514,809	<u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A.
-	-	-	-	2	Pourcentage du total pour le Canada.....
-	-	-	-	70	Dynamos, C.A.....Nomb.
972	3,710	139,383	68,383	7,740	Capacité totale.....Kv.A.
0.31	1.18	44.32	21.75	2.46	Dynamos, C.A.....Nomb.
13	35	124	54	32	Capacité totale.....Kv.A.
927	3,674	137,864	66,656	7,660	Dynamos, C.D.....Nomb.
2	3	131	62	4	Capacité totale.....Kv.
45	36	1,519	1,727	80	

X - Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.

TABLE 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1940.

		Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>PRIMARY POWER</b>							
Water wheels and turbines.....	No.	836	7	57	16	271	348
	Total H.P.	7,567,088	392	102,990	105,760	3,880,505	2,262,164
Under 500 H.P.....	No.	136	7	20	2	29	53
	Total H.P.	28,353	392	4,830	710	5,561	11,774
500 - 2,000 H.P.....	No.	218	-	19	3	62	122
	Total H.P.	235,989	-	20,270	2,550	65,694	133,385
2,000 - 5,000 H.P.....	No.	135	-	11	6	33	66
	Total H.P.	397,821	-	36,890	17,500	94,550	189,935
5,000 - 10,000 H.P.....	No.	111	-	7	1	33	33
	Total H.P.	735,225	-	41,000	5,000	233,400	215,000
10,000 - 15,000 H.P.....	No.	81	-	-	-	28	44
	Total H.P.	939,302	-	-	-	301,900	528,500
15,000 - 25,000 H.P.....	No.	54	-	-	4	17	11
	Total H.P.	1,012,500	-	-	80,000	352,500	182,500
25,000 - 50,000 H.P.....	No.	72	-	-	-	55	4
	Total H.P.	2,532,900	-	-	-	2,031,900	112,000
50,000 H.P. and up.....	No.	29	-	-	-	14	15
	Total H.P.	1,685,000	-	-	-	795,000	890,000
Steam reciprocating engines.....	No.	39	-	2	5	-	8
	Total H.P.	10,355	-	575	3,180	-	350
Under 500 H.P.....	No.	31	-	1	2	-	8
	Total H.P.	3,895	-	75	280	-	350
500 H.P. and up.....	No.	8	-	1	3	-	-
	Total H.P.	6,460	-	500	2,900	-	-
Steam turbines.....	No.	70	4	14	6	1	-
	Total H.P.	321,208	6,680	65,513	30,080	150	-
Under 500 H.P.....	No.	6	-	1	-	1	-
	Total H.P.	1,514	-	402	-	150	-
500 - 2,000 H.P.....	No.	18	3	2	1	-	-
	Total H.P.	20,199	4,180	2,256	700	-	-
2,000 - 5,000 H.P.....	No.	24	1	5	3	-	-
	Total H.P.	72,166	2,500	14,080	11,000	-	-
5,000 - 10,000 H.P. and up.....	No.	22	-	6	2	-	-
	Total H.P.	227,329	-	48,775	18,380	-	-
Gas and oil engines.....	No.	430	8	14	4	7	7
	Total H.P.	37,216	1,237	873	638	2,600	940
<b>SECONDARY POWER</b>							
Dynamos, A.C. and D.C.....	No.	1,359	18	87	31	278	361
	Total Kv.A.	6,691,211	6,256	141,659	118,747	3,412,195	1,818,209
Dynamos, A.C.....	No.	1,150	18	86	29	276	359
	Total Kv.A.	6,686,818	6,256	141,619	117,897	3,412,169	1,818,164
Under 50 Kv.A.....	No.	102	5	9	-	6	7
	Total Kv.A.	2,925	136	256	-	223	198
50 - 200 Kv.A.....	No.	171	7	14	6	13	32
	Total Kv.A.	18,812	678	1,485	687	1,408	3,871
200 - 500 Kv.A.....	No.	139	2	17	2	23	43
	Total Kv.A.	43,742	612	5,488	675	8,088	13,483
500 - 1,000 Kv.A.....	No.	136	1	9	4	38	66
	Total Kv.A.	97,207	625	6,445	2,750	27,600	47,520
1,000 - 5,000 Kv.A.....	No.	273	3	29	11	53	116
	Total Kv.A.	631,385	4,205	75,770	28,475	112,295	242,960
5,000 - 10,000 Kv.A.....	No.	114	-	8	2	25	48
	Total Kv.A.	797,797	-	52,175	15,310	166,020	359,592
10,000 - 15,000 Kv.A.....	No.	72	-	-	-	32	24
	Total Kv.A.	779,825	-	-	-	333,660	257,040
15,000 - 25,000 Kv.A.....	No.	60	-	-	4	20	8
	Total Kv.A.	1,134,000	-	-	70,000	409,250	154,000
25,000 - 50,000 Kv.A.....	No.	74	-	-	-	62	10
	Total Kv.A.	2,709,125	-	-	-	2,153,625	467,500
50,000 Kv.A. and up.....	No.	9	-	-	-	4	5
	Total Kv.A.	472,000	-	-	-	200,000	272,000
Dynamos, D.C.....	No.	209	-	1	2	2	2
	Total Kw.	4,393	-	40	850	26	45
Under 50 Kw.....	No.	205	-	1	-	2	2
	Total Kw.	2,393	-	40	-	26	45
50 - 200 Kw.....	No.	-	-	-	-	-	-
	Total Kw.	-	-	-	-	-	-
200 - 500 Kw.....	No.	2	-	-	1	-	-
	Total Kw.	600	-	-	200	-	-
500 Kw. and up.....	No.	2	-	-	1	-	-
	Total Kw.	1,400	-	-	650	-	-



TABEAU 13 - OUTILLAGE CLASSIFIÉ DES USINES PRINCIPALES, 1940.

Manitoba	Saskat-	Alberta	British Columbia and Yukon	Commercial	Municipal	
512,636	165,387	147,431	645,736	5,708,664	2,227,203	<u>FORCE MOTRICE PRIMAIRE</u> ..... H.P.
43	-	11	83	552	284	<u>Turbines et roues hydrauliques</u> ..... Nomb.
508,300	-	69,140	637,837	5,544,803	2,022,285	Total H.P.
-	-	3	22	91	45	Moins de 500 H.P. .... Nomb.
-	-	1,140	3,946	16,263	12,090	Total H.P.
-	-	-	12	119	99	500 - 2,000 H.P. .... Nomb.
-	-	-	14,120	123,744	112,245	Total H.P.
4	-	2	13	91	44	2,000 - 5,000 H.P. .... Nomb.
12,800	-	8,000	39,146	272,271	125,550	Total H.P.
21	-	4	12	73	38	5,000 - 10,000 H.P. .... Nomb.
130,000	-	24,000	86,825	500,025	235,200	Total H.P.
4	-	-	5	53	28	10,000 - 15,000 H.P. .... Nomb.
50,000	-	-	58,800	586,600	352,700	Total H.P.
8	-	2	12	43	11	15,000 - 25,000 H.P. .... Nomb.
147,500	-	36,000	214,000	830,000	182,500	Total H.P.
6	-	-	7	68	4	25,000 - 50,000 H.P. .... Nomb.
168,000	-	-	221,000	2,420,900	112,000	Total H.P.
-	-	-	-	14	15	50,000 et plus H.P. .... Nomb.
-	-	-	-	796,000	890,000	Total H.P.
4	2	13	5	22	17	<u>Machines à vapeur, à mouvement alternatif</u> ..... Nomb.
553	1,150	4,078	469	5,702	4,653	Total H.P.
4	1	10	5	18	13	Moins et 500 H.P. .... Nomb.
553	400	1,768	469	2,302	1,593	Total H.P.
-	1	3	-	4	4	500 H.P. et plus. .... Nomb.
-	750	2,310	-	3,400	3,060	Total H.P.
2	25	15	3	35	35	<u>Turbines à vapeur</u> ..... Nomb.
1,250	142,300	70,395	4,840	138,280	182,928	Total H.P.
1	1	2	-	1	5	Moins et 500 H.P. .... Nomb.
400	267	295	-	150	1,364	Total H.P.
1	7	2	2	10	8	500 - 2,000 H.P. .... Nomb.
850	8,373	2,000	1,840	11,923	8,276	Total H.P.
-	8	6	1	14	10	2,000 - 5,000 H.P. .... Nomb.
-	24,286	17,300	3,000	39,166	33,000	Total H.P.
-	9	5	-	10	12	5,000 - 10,000 H.P. .... Nomb.
-	109,374	50,800	-	87,041	140,288	Total H.P.
32	234	94	30	324	106	<u>Moteurs à gaz et à pétrole</u> ..... Nomb.
2,533	21,937	3,818	2,590	19,879	17,337	Total H.P.
81	255	127	121	919	440	<u>FORCE MOTRICE SECONDAIRE</u>
411,310	139,383	120,833	522,619	4,906,268	1,784,943	<u>Dynamos, C.A. et C.D.</u> ..... Nomb.
78	124	65	115	734	416	Total Kv.A.
411,274	137,864	119,106	522,469	4,903,383	1,783,435	<u>Dynamos, C.A.</u> ..... Nomb.
17	25	18	15	74	28	Total Kv.A.
477	782	451	402	2,155	770	Moins et 50 Kv.A. .... Nomb.
13	42	18	26	111	60	Total Kv.A.
1,196	4,764	2,067	2,656	11,605	7,207	50 - 200 Kv.A. .... Nomb.
4	29	7	12	67	72	Total Kv.A.
1,220	8,627	2,125	3,424	20,448	23,294	200 - 500 Kv.A. .... Nomb.
1	6	3	8	76	60	Total Kv.A.
781	3,886	2,088	5,512	53,420	43,787	500 - 1,000 Kv.A. .... Nomb.
14	14	13	20	167	106	Total Kv.A.
46,350	32,305	39,875	49,150	387,530	243,855	1,000 - 5,000 Kv.A. .... Nomb.
11	4	2	14	69	45	Total Kv.A.
70,750	25,000	11,250	97,700	481,625	316,172	5,000 - 10,000 Kv.A. .... Nomb.
7	2	1	6	53	19	Total Kv.A.
76,000	25,000	12,500	75,625	581,225	198,600	10,000 - 15,000 Kv.A. .... Nomb.
11	2	3	12	49	11	Total Kv.A.
214,500	37,500	48,750	200,000	923,750	210,250	15,000 - 25,000 Kv.A. .... Nomb.
-	-	-	2	64	10	Total Kv.A.
-	-	-	88,000	2,241,625	467,500	25,000 - 50,000 Kv.A. .... Nomb.
-	-	-	-	4	5	Total Kv.A.
-	-	-	-	200,000	272,000	50,000 Kv.A. et plus. .... Nomb.
-	-	-	-	-	-	Total Kv.A.
3	131	62	6	185	24	<u>Dynamos, C.D.</u> ..... Nomb.
36	1,519	1,727	150	2,885	1,508	Total Kw.
3	131	60	6	183	22	Moins de 50 Kw. .... Nomb.
35	1,519	577	150	2,035	358	Total Kw.
-	-	-	-	-	-	50 - 200 Kw. .... Nomb.
-	-	-	-	-	-	Total Kw.
-	-	1	-	1	1	200 - 500 Kw. .... Nomb.
-	-	-	-	200	400	Total Kw.
-	-	1	-	1	1	500 Kw. et plus. .... Nomb.
-	-	750	-	650	750	Total Kw.



TABLE 14 - ELECTRIC ENERGY GENERATED, 1940

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>ALL STATIONS</b>					
Total kilowatt hours generated..... (thousands)...	30,109,283	8,285	444,061	469,587	16,010,914
Per cent of total for Canada.....	100.00	0.03	1.48	1.56	53.18
Kilowatt hours generated by non-generating stations..... (thousands)...	9,063	-	9,581	-	-
Kilowatt hours generated by generating stations..... (thousands)...	30,100,215	8,285	435,410	469,587	16,010,914
Kv.A. capacity of generating stations.....	6,826,429	6,304	141,809	112,747	3,435,570
Ratio of output to maximum capacity..... p.c....	51.72	15.00	35.05	45.15	58.05
Average kilowatt hours per Kv.A.....	4,409	1,314	3,070	3,955	4,660
<b>GENERATING STATIONS</b>					
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated..... (thousands)...	22,278,255	7,138	202,522	391,175	15,931,361
Kv.A. capacity.....	5,001,724	5,227	72,541	94,181	3,402,795
Ratio of output to maximum capacity..... p.c....	52.77	15.40	32.83	47.41	55.21
Average kilowatt hours per Kv.A.....	4,454	1,349	2,876	4,153	4,672
<b>Hydraulic Stations</b>					
Kilowatt hours generated..... (thousands)...	22,007,241	312	62,474	363,030	15,931,138
Kv.A. capacity.....	4,863,626	407	16,576	80,975	3,409,606
Ratio of output to maximum capacity..... p.c....	53.67	2.76	43.03	51.18	56.22
Average kilowatt hours per Kv.A.....	4,525	767	3,765	4,483	4,672
<b>Fuel Stations</b>					
Kilowatt hours generated..... (thousands)...	271,014	5,301	146,119	28,145	223
Kv.A. capacity.....	188,099	4,880	55,965	13,206	189
Ratio of output to maximum capacity..... p.c....	22.40	15.96	29.81	24.33	13.47
Average kilowatt hours per Kv.A.....	1,962	1,398	2,611	2,131	1,180
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated..... (thousands)...	7,821,960	1,152	226,812	78,412	72,553
Kv.A. capacity.....	1,824,705	1,017	69,268	24,566	75,775
Ratio of output to maximum capacity..... p.c....	48.94	12.93	37.37	36.44	35.23
Average kilowatt hours per Kv.A.....	4,297	1,133	3,274	3,192	3,066
<b>Hydraulic Stations</b>					
Kilowatt hours generated..... (thousands)...	7,530,218	-	222,619	18,827	74,550
Kv.A. capacity.....	1,648,345	-	66,658	10,263	23,675
Ratio of output to maximum capacity..... p.c....	52.15	-	38.13	20.94	35.35
Average kilowatt hours per Kv.A.....	4,568	-	3,340	1,834	3,149
<b>Fuel Stations</b>					
Kilowatt hours generated..... (thousands)...	291,742	1,152	4,199	59,585	5,003
Kv.A. capacity.....	176,350	1,017	3,610	14,303	3,100
Ratio of output to maximum capacity..... p.c....	18.82	12.93	18.37	47.56	77.19
Average kilowatt hours per Kv.A.....	1,654	1,133	1,609	4,166	2,382
<b>TOTAL HYDRAULIC STATIONS</b>					
Kilowatt hours generated..... (thousands)...	29,537,459	312	285,093	381,857	16,005,689
Kv.A. capacity.....	6,511,971	407	83,234	91,238	3,423,281
Ratio of output to maximum capacity..... p.c....	53.27	6.54	39.10	47.77	56.07
Average kilowatt hours per Kv.A.....	4,536	748	3,425	4,185	4,662
Kilowatt hours generated by water power..... (thousands)...	29,524,248	239	285,076	381,857	16,005,642
Kilowatt hours generated by auxiliary plants..... (thousands)...	13,211	73	17	-	46
<b>TOTAL FUEL STATIONS</b>					
Kilowatt hours generated..... (thousands)...	562,756	7,973	150,317	87,730	5,226
Kv.A. capacity.....	314,459	5,697	58,575	27,509	2,289
Ratio of output to maximum capacity..... p.c....	20.43	15.43	29.29	36.40	26.36
Average kilowatt hours per Kv.A.....	1,790	1,352	2,566	3,189	2,283
<b>CONSUMPTION OF ELECTRIC ENERGY (THOUSANDS OF KILOWATT HOURS)...</b>					
Total kilowatt hours generated.....	30,109,283	8,285	444,061	469,587	16,010,914
Kilowatt hours imported from the United States.....	653	-	-	6	234
Kilowatt hours imported from other provinces.....	-	-	-	6,388	142,946
Kilowatt hours exported to the United States.....	2,132,129	-	-	22,420	427
Kilowatt hours exported to other provinces.....	-	-	-	-	4,154,788
<b>KILOWATT HOURS FOR CONSUMPTION IN CANADA.....</b>					
Domestic service.....	27,977,209	8,285	444,061	453,561	11,992,869
Commercial light.....	2,436,572	3,076	43,277	29,388	324,232
Small power.....	1,206,526	2,095	25,980	20,020	298,117
Large power.....	564,040	606	15,409	6,452	122,048
Street lighting.....	20,477,744	892	303,711	390,001	10,327,162
Free service (other than street lighting).....	206,396	361	5,350	3,890	32,280
Losses.....	68,060	13	60	238	61,351
	3,018,371	1,242	30,774	5,552	826,982

+ Excludes exports to other provinces and/or to the United States.

TABLEAU 14 - ENERGIE ELECTRIQUE GENEREE, 1940.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
8,841,010 29.36	1,747,628 5.80	175,889 0.58	274,121 0.91	2,137,788 7.10	<u>TOUTES USINES</u> Total Kw. heures générés.....(milliers). Pourcentage du total pour le Canada..... Kilowatt-heure générés par les usines non-génératrices.....(milliers). Kilowatt-heure générés par les usines génératrices " " Capacité des usines génératrices en Kw.A..... Proportion de la production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A.....
331 8,840,679 1,849,397 54.57 4,780	1 1,747,627 436,310 45.72 4,005	- 175,889 139,383 14.41 1,262	52 274,069 137,495 22.75 1,993	33 2,137,755 561,414 44.12 3,808	<u>USINES GENERATRICES</u> <u>USINES COMMERCIALES</u> TOTAL Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de la production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines Hydrauliques Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines à combustible Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A.....
2,225,417 452,543 56.14 4,918	1,159,365 290,490 45.56 3,991	59,873 46,913 14.57 1,276	171,859 76,987 25.48 2,232	2,103,480 552,987 44.50 3,840	<u>USINES MUNICIPALES</u> TOTAL Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines Hydrauliques Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines à combustible Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A.....
2,225,073 452,388 56.15 4,919	1,158,280 289,350 45.70 4,003	- - - -	157,866 63,262 26.40 2,313	2,109,088 546,062 44.77 3,862	<u>USINES MUNICIPALES</u> TOTAL Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines Hydrauliques Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines à combustible Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A.....
6,615,262 1,396,854 54.06 4,736	588,262 145,820 46.05 4,034	116,016 92,470 14.36 1,255	102,210 60,508 19.28 1,689	14,275 8,427 19.34 1,694	<u>USINES MUNICIPALES</u> TOTAL Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines Hydrauliques Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines à combustible Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A.....
6,614,448 1,396,037 54.09 4,738	584,569 143,250 46.59 4,081	- - - -	1,609 860 21.61 1,893	13,596 7,612 20.39 1,786	<u>USINES MUNICIPALES</u> TOTAL Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines Hydrauliques Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Usines à combustible Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A.....
8,839,521 1,848,425 54.59 4,782 8,839,206 315	1,742,829 432,600 45.99 4,029 1,742,666 163	- - - - - -	159,475 69,112 26.34 2,807 158,407 1,068	2,122,684 553,674 44.43 3,834 2,111,155 11,529	<u>TOUTES USINES HYDRAULIQUES</u> Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A..... Kw.-heure générés par force motrice hydraulique.....(milliers). Kw.-heure générés par les usines auxiliaires.....(milliers).
1,158 972 13.60 1,191	4,798 3,710 14.76 1,293	175,889 139,383 14.41 1,262	114,594 68,383 19.13 1,676	15,071 7,740 22.23 1,947	<u>TOUTES USINES A COMBUSTIBLE</u> Kilowatt-heure générés.....(milliers). Capacité en Kw.A..... Proportion de production à la capacité maximum..... p.c.. Moyenne de kilowatt-heure par Kw.A.....
8,841,010 - 4,148,400 2,107,749 142,946	1,747,628 294 - 1,013 -	175,889 35 - - -	274,121 86 2,372 -	2,137,788 - - 510 2,372	<u>CONSOMMATION D'ENERGIE ELECTRIQUE (EN MILLIERS DE KW.H.)</u> Total de kilowatt-heure générés..... Kilowatt-heure importés des Etats-Unis..... Kilowatt-heure importés d'autres provinces..... Kilowatt-heure exportés aux Etats-Unis..... Kilowatt-heure exportés à d'autres provinces.....
10,738,715 1,459,233 607,809 292,860 6,649,410 100,009 600 1,628,794	1,746,909 330,269 84,653 52,096 1,058,734 19,999 49 201,103	175,924 43,406 29,759 22,584 55,414 7,915 23 16,823	276,579 45,110 36,820 36,555 103,364 9,350 1,926 43,454	2,134,906 158,781 101,373 15,433 1,589,056 19,622 3,570 247,011	<u>KILOWATT-HEURE CONSOMMES AU CANADA.....</u> Service domestique..... Eclairage commercial..... Petite force motrice..... Grosse force motrice..... Eclairage des rues..... Service gratuit (autre que l'éclairage des rues)..... Pertes

\* Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.

TABLE 15 - FUEL, 1940.

	Bituminous Coal Charbon bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA.....	381,672	1,429,850	467	3,912
Prince Edward Island.....	7,572	44,779	-	-
Nova Scotia.....	164,629	651,332	-	-
New Brunswick.....	71,072	301,348	-	-
Quebec.....	-	-	467	3,912
Ontario.....	220	987	-	-
Manitoba.....	3,875	15,898	-	-
Saskatchewan.....	85,189	338,979	-	-
Alberta.....	40,404	47,390	-	-
British Columbia and Yukon.....	8,711	28,636	-	-
	Fuel Oil and Diesel Oil Mazout et huile diesel		Wood Bois	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Gal. Gal.	\$	Cords Cordes	\$
CANADA.....	11,163,419	701,344	6,036	21,291
Prince Edward Island.....	149,854	14,997	225	900
Nova Scotia.....	89,312	15,142	-	-
New Brunswick.....	54,228	5,603	-	-
Quebec.....	364,069	31,961	-	-
Ontario.....	237,688	21,784	500	700
Manitoba.....	255,903	34,527	5,111	19,291
Saskatchewan.....	8,279,911	437,728	200	300
Alberta.....	301,599	44,560	-	-
British Columbia and Yukon.....	430,845	95,032	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial.  
Cords = 128. cu. feet.



TABLEAU 15 - COMBUSTIBLE, 1940.

Lignite Coal Charbon Lignite		Gasolene Gasoline		Kerosene Kérosène	
Canadian - Canadien					
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
128,705	206,196	21,322	4,329	8,892	1,659
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	2,400	620	4,518	813
-	-	-	-	-	-
-	-	503	162	173	27
35,169	50,820	9,098	1,613	2,888	479
92,536	155,376	9,089	1,837	1,300	338
-	-	232	97	3	2
Manufactured Gas Gaz fabriqué		Natural Gas Gaz naturel		Other Fuel Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu. ft. 1,000 pds. cu.	\$	1,000 cu. ft. 1,000 pds. cu.	\$	\$	\$
3,577,403	49,991	330,872	8,236	21,708	2,448,016
-	-	-	-	-	60,676
3,535,428	42,420	-	-	2,651	711,546
-	-	-	-	-	306,951
-	-	-	-	-	37,306
-	-	-	-	-	23,471
-	-	-	-	6,231	76,236
-	-	-	-	-	829,929
41,975	7,571	330,872	8,236	-	255,308
-	-	-	-	12,826	136,593

Note: Tonne = 2,000 livres.  
Gallon = Impérial.  
Corde = 128 pds. cu.







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Ministre du Commerce.

**CANADA**

**MINISTERE DU COMMERCE**

**BUREAU FEDERAL DE LA STATISTIQUE**

**SECTION DES TRANSPORTS ET UTILITES PUBLIQUES**

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**RECENSEMENT INDUSTRIEL**

**1940**

**USINES ELECTRIQUES CENTRALES  
AU CANADA**

(Préparé en collaboration avec le Bureau Fédéral  
de l'hydraulique et de l'énergie Electrique,  
Ministère des Mines et Ressources)



OTTAWA  
1942

Prix, 25 cents

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**CANADA**

**DEPARTMENT OF TRADE AND COMMERCE**

**DOMINION BUREAU OF STATISTICS**

**TRANSPORTATION & PUBLIC UTILITIES BRANCH**

**CENSUS OF INDUSTRY**

**1941**

Electric Power Utilities

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

1941

(Prepared in collaboration with the Dominion  
Water and Power Bureau, Department of  
Mines and Resources)



OTTAWA  
1943

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Minister of Trade and Commerce.

**DOMINION BUREAU OF STATISTICS**  
**TRANSPORTATION AND PUBLIC UTILITIES BRANCH**  
**OTTAWA**

Dominion Statistician, S. A. CUDMORE, M.A. (Oxon.), F.S.S., F.R.S.C.

Chief, Transportation and Public Utilities Branch, G.S. Wrong, B.Sc.

CENTRAL ELECTRIC STATION INDUSTRY, 1941.

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 21 stations which were holding generating equipment classed as auxiliary plant equipment. Twelve of them purchased all their electric energy and the remaining nine generated only 9,057,000 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

The output of central electric stations has increased fairly continuously, the only peak in the steady rise being in 1930-32, and again in 1938. In both instances the loss was more than regained in the following year. A feature of the increases in 1941 and also, as shown by the monthly reports for 1942, has been the transfer of secondary power to firm power plants. The firm power produced for use in Canada increased over the previous year by 7.5 p.c. in 1939, 16.1 p.c. in 1940 and 23.0 p.c. in 1941, and 17.0 p.c. in 1942, or a total increase in 1942 over 1938 of 80 p.c. Increased diversion of water at Niagara Falls under agreement with the United States Government was a factor in the increased production and the majority of the large plants were producing at their full capacity with the water available.

The production of electric energy for secondary use each month is shown below. These sales have been decreasing each year since war industries have been taxing the capacities of the plants to supply firm or primary power.

SECONDARY POWER FOR USE IN CANADA

(Thousands of Kilowatt Hours)

Month	1938	1939	1940	1941
January	603,778	607,070	571,502	254,150
February	530,471	605,257	546,239	221,700
March	574,663	619,756	484,192	235,823
April	480,828	527,079	443,481	335,398
May	453,897	578,058	588,189	388,909
June	375,160	526,652	575,863	205,865
July	393,922	488,165	565,869	229,452
August	438,746	505,652	414,632	164,271
September	508,344	590,900	326,025	270,359
October	565,342	684,433	297,519	335,863
November	622,041	685,441	309,146	407,939
December	582,857	615,246	300,526	331,706
TOTAL	6,130,055	7,033,709	5,423,183	3,381,435

Revised

The pulp and paper industry used 61 p.c. of this power, viz: 2,063,233,000 kw.hrs. in their electric boilers and this industry also purchased 5,139,291,000 kw. hrs. of power and light, making a total of 7,202,524,000 kw.hrs., or 22 p.c. of the total output of all central electric stations in 1941.

The following table shows the consumption of electricity in each province, computed adding to the production all imports into each province and deducting all exports. Because the large decreases in use of secondary power the increases in total consumption do not indicate the true importance in the increases. In Quebec firm power consumption increased by 39,569,000 kw. hrs. or 37.6 p.c., and in Ontario by 2,250,698,000 kw. hrs. or 14.0 p.c. In other provinces secondary power consumption was not so large nor did it undergo such variations.

CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)

(Thousands of Kilowatt Hours)

	Secondary Power Delivered to Consumers in Canada  1941	Other Uses and Line Losses  1941	Total		Changes	
			1941	1940	1941 vs. 1940	
					Kw.hrs.	p.c.
P. E. Island ....	...	11,869	11,869	8,285	+ 3,584	43.26
Nova Scotia .....	2,568	477,609	480,177	444,061	+ 36,116	8.13
New Brunswick ...	31,697	483,518	515,215	453,561	+ 61,654	13.59
Quebec .....	1,947,160	11,496,991	13,444,151	11,998,868	+ 1,445,282	12.05
Ontario .....	945,169	10,653,021	11,598,190	10,738,715	+ 859,475	8.00
Manitoba .....	451,957	1,474,054	1,926,011	1,746,909	+ 179,102	10.25
Saskatchewan ....	...	196,378	196,378	175,924	+ 20,454	11.63
Alberta .....	...	322,688	322,688	276,579	+ 46,109	16.67
British Columbia and Yukon ...	2,884	2,466,541	2,469,425	2,134,906	+ 334,519	15.67
CANADA .....	3,381,435	27,582,669	30,964,104	27,977,809	+ 2,986,295	10.67

Electricity is exported from Canada only by licence granted by the Electricity and Gas Section Services of the Department of Trade and Commerce, and the same branch of the Department jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal ended March 31, 1941, the export duty amounted to \$560,047 as against \$443,783 for the previous . The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported.



Below is a table showing the quantities of power produced for export for the calendar year 1941, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES  
(Calendar Year 1941)

Company	Produced for Export	Exported
	Kw. h.	Kw. h.
Hydro Electric Power Commission of Ontario .....	398,145,800	393,750,900
" " " " " " (surplus)-Niagara..	644,538,600	633,746,900
" " " " " " -Cornwall	311,271,660	273,630,473
Cedar Rapids Manufacturing and Power Co., Ltd. ....	668,285,611	636,930,098
Canadian Niagara Power Co., Ltd. ....	368,599,000	350,254,246
" " " " " (Surplus) .....	8,223,200	8,223,200
Ontario and Minnesota Power Co., Ltd. ....	30,222,800	30,222,800
Maine and New Brunswick Electric Power Co. ....	24,497,409	23,492,600
British Columbia Electric Railway Co., Ltd. ....	226,653	207,190
Northport Power and Light Co. ....	335,758	335,758
Southern Canada Power Company .....	1,050,134	1,050,134
Canadian Cottons, Ltd. ....	1,093,680	1,093,680
Northern British Columbia Power Co. ....	23,110	23,110
Fraser Companies, Ltd. ....	5,310,000	5,310,000
Detroit and Windsor Subway Company .....	271,700	271,700
Manitoba Power Commission .....	996,340	996,340
TOTAL .....	2,463,091,455	2,359,539,129
Kilowatt hours produced for export and exported by central electric stations only .....	2,457,781,455	2,354,229,129

Of the total output of 33,317,663,000 kw.h., 32,628,930,000 kw.h., or almost 98 p.c., was produced by water power, whereas only 644,652,000 kw.h. were produced by plants using only thermal engines and 44,081,000 kw.h. were produced by auxiliary equipment in hydraulic plants and in non-generating plants.

Total hydraulic installations in all industries in Canada at the close of 1941, including active and inactive plants, as compiled by the Dominion Water and Power Bureau was 8,845,038 horse power. The available and developed water power in each province is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province (1)	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow (2)	At Ordinary Six Months Flow (3)	1 9 4 1 (4)	1 9 4 2 (5)
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	139,217	143,717
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	4,556,943	4,839,543
Ontario .....	5,330,000	6,940,000	2,617,495	2,684,395
Manitoba .....	3,309,000	5,344,500	420,925	420,925
Saskatchewan .....	542,000	1,082,000	90,835	90,835
Alberta .....	390,000	1,049,500	71,997	94,997
British Columbia ...	7,023,000	10,998,000	788,763	792,563
Yukon & Northwest Territories ....	294,000	731,000	22,899	22,899
CANADA .....	25,439,400	39,511,700	8,845,038	9,225,838

Revised.

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 51,350,000 horse power.

TABLE 1 - COMPARATIVE SUMMARY, 1932-1941

During the year there was an increase of 5 fuel stations but no change was made in the number of hydraulic stations. Capital invested increased by 1.6 p.c. and revenues were larger by \$19,851,581 or 11.9 p.c. The number of domestic customers continued to increase to 1,758,917 or 4.1 p.c. greater than in 1940. Small power customers increased by 933 and large power customers increased by 444 and the power consumed by each class showed increases, consumption by large power customers being up by 11.3 p.c.

TABLE 2 - DOMESTIC SERVICE, 1932-1941

This table shows the number of customers, the consumption, revenue, and averages computed from these for domestic service including farm service for 1941 back to 1932. In all provinces the number of customers increased during this period, the percentages ranging from 37.0 p.c. in Saskatchewan to 51 p.c. in Nova Scotia. The rate of consumption also increased in all provinces, Prince Edward Island leading here with an increase of 133 p.c. All of the provinces showed increased revenues from domestic service. The average annual consumption per customer varied widely, Manitoba leading with an average in 1941 of 4,031 kw.hrs. per customer and New Brunswick showing the smallest consumption at 591 kw.hrs. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario and British Columbia have been remarkably close together throughout these ten years despite the wide variations in unit costs. Domestic services are further discussed under Table 5 and at the end of this report.

TABLE 3 - POWER PLANTS

The generating stations are the individual power plants of the central electric stations. Each building housing power machinery is counted as a generating station. The commercial organizations are companies and individuals selling electric energy and the municipalities include urban and rural municipalities, provincial commissions, etc., selling electric energy. Those generating power operate from one to several power plants each, the largest system being the Ontario Hydro Electric Power Commission which operates 50 hydraulic plants and owns one steam auxiliary plant. The auxiliary plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations.



TABLE 4 - CAPITAL

The capital employed in the industry is reported under three heads, viz., generation, transmission and distribution, and general. "Generation" includes investments in power houses and sites, dams penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. "Transmission and distribution" includes all transmission and distribution towers, poles, wires, cables and conduits and right-of-way, receiving stations and substations and sites, switchboards and step-up transformers in these and in power houses, step-down transformers, meters, etc. "General" includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal years, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. The averages of total capital per unit of power are more indicative of different classes of stations and service given than costs of similar installations. The same also applies to generation capital per unit of power, only to a lesser degree.

TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service, which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick, and Alberta, which purchased power from other provinces, were lower than they should have been. /

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the use of electric stoves, flat rate water heaters, the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services, for

/ See 1933 report, page 5, for effect of this omission.

commercial light, etc., line losses were not included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average revenue of 1.69 cents per kilowatt hour for all domestic service compares with an average of 3.73 cents or 3.73 cents including farm services in the United States. The average revenues per horse power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue for this power. In computing the averages for Ontario stations the equipment capacities shown in Tables 11 and 15 were increased one horse power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro Electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per week for each horse power purchased. It is quite probable this output is a little too high for all the power imported from Quebec and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

The federal sales tax of 8 p.c. of domestic service bills has been treated by practically all central electric stations as a tax on the consumer and was not included in average revenues or expenses. The Act placed the tax on the producer or importer, but a subsequent order in Council allowed the producer or importer to increase the charge to the consumer by the amount of the tax irrespective of any agreements, charters, etc.

#### TABLE 6 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations. As explained above the federal sales tax on domestic bills has not been included in the taxes shown in this table.

#### TABLE 7 - EMPLOYEES

The net increase in the number of employees during the year was 826, the main increases being in Quebec and Ontario. The following table analyses the hours of work of wage earners in the indu-



Over half of the employees worked a 48 hour week and 85.3 p.c. worked 48 hours or less per week.

NUMBER OF WAGE EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS  
PER WEEK WERE:

Hours per Week	40 or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 & over	Total
P.E.I.	-	-	-	-	32	-	-	-	1	5	-	38
N.S.	155	7	34	90	485	28	16	43	13	49	148	1,068
N.B.	7	37	1	2	218	1	1	43	1	25	1	337
Quebec	274	-	45	2	3,087	136	9	408	-	81	76	4,118
Ontario	586	23	657	130	3,475	237	37	210	14	186	74	5,629
Manitoba	22	-	99	1	469	94	2	8	-	3	3	701
Sask.	81	1	53	43	210	2	9	54	-	10	26	489
Alberta	100	2	69	1	252	1	-	-	-	-	1	426
B.C. and Yukon	290	-	183	13	742	1	-	1	-	8	2	1,240
CANADA	1,515	70	1,141	282	8,970	500	74	767	29	367	331	14,046
Per cent of Total	10.8	.5	8.1	2.0	63.9	3.5	.5	5.5	.2	2.6	2.4	100.0

TABLE 8 - CUSTOMERS

As explained under table 4, stations are asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. The number of farm customers reported for 1941 was 109,485 or 6.2 p.c. of the combined domestic and farm customers, and they consumed 127,918,277 kilowatt hours. From the 1931 population census data we know the actual number of farms served was considerably greater than reported by the stations, the difference probably being included with domestic services. Farms close to large urban centres receiving service at rates similar to urban customers still will be classed as domestic customers in many cases. In Ontario where the majority of farm customers are served by the provincial commission and are classed as farm customers the difference from the 1931 census figure was small. In 1941 the Ontario farm customers reported were 65,442 or 60 p.c. of the total. Quebec stations reported 27,413 farm customers. For the other provinces 16,630 were reported, but if the 1931 data can be used as a criterion this is considerably less than the actual number of farms served. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality itself distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. The average number of domestic service customers per 100 population increased from 14.9 in 1940 to 15.3 in 1941. These averages are based on the Bureau's 1941 census data and each residence or family served is counted as one customer. These averages were first computed in 1920 and since then the average for Canada has increased from 8.86 to 15.3 or by 73 p.c.



TABLE 9 - POLE LINE MILEAGE

Transmission and distribution lines are combined in this table and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileages.

TABLES 10-11-12-13 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand the greater part of it is held strictly in reserve for emergencies, only 35,026,000 kilowatt hours being generated during the year by this auxiliary equipment.

TABLE 14 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the

ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 Kv.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. In some cases this changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly especially up to 1937. Since the outbreak of the war the supply of surplus power has been greatly reduced and with war industries working twenty four hours per day the supply of off-peak power has also been reduced so that sales of secondary power have shown a steady decrease month by month; for December 1942 total secondary power sales were only 31 p.c. of the December 1939 total.

#### TABLE 15 - FUEL

Fuel used is almost entirely local coal, oil and gas, and Saskatchewan and Nova Scotia are the only provinces using any substantial quantities of fuel to develop electric energy. Nova Scotia has several large hydro-electric developments, but Saskatchewan has only one which is on the Manitoba boundary and is included with Manitoba stations in these statistics. "Other fuel" is composed of steam purchased by a Nova Scotia station and sawdust and "hog" fuel in British Columbia.

#### DOMESTIC SERVICE

In the following table data on domestics are brought together and analysed. As might be expected the provinces with relatively high percentages of rural populations, Prince Edward Island, Saskatchewan and Alberta show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of the

Quebec's low unit cost and high average consumption are influenced by flat rate water heaters in Montreal which induce high consumption per customer. Also where hydro-electric power is plentiful the rates are generally low and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and large consumption by pulp and paper and electric metallurgical plants.

Domestic customers in Ontario used almost 60 p.c. of the total power used by all domestic customers in Canada but the population of this province was 30 p.c. of the total for the Dominion.

DOMESTIC SERVICE, 1941

PROVINCE	NUMBER OF CUSTOMERS		AVERAGE BILL FOR YEAR	AVERAGE PER KILOWATT HOUR	AVERAGE ANNUAL CONSUMPTION		CONSUMPTION BY DOMESTIC SERVICE	
	Total	Per 100 Population			Per Customer	Per Capita	Per cent of total Provincial Consumption	Per cent of Dominion Dom. Service Consumption
			\$	¢	Kw.Hr.	Kw.Hr.		
P.E. Island	5,531	5.82	33.10	5.26	630	37	29.4	0.1
Nova Scotia	69,997	12.11	29.50	4.27	691	84	10.1	1.9
New Brunswick	52,851	11.55	27.16	4.59	591	68	6.1	1.2
Quebec	473,547	14.21	21.33	2.95	724	103	2.6	13.3
Ontario	772,153	20.39	28.47	1.42	2,002	408	13.3	59.9
Manitoba	85,106	11.66	40.80	1.01	4,031	470	17.8	13.3
Saskatchewan	52,695	5.88	41.24	4.78	862	51	23.1	1.8
Alberta	72,422	9.10	33.05	5.03	657	60	14.7	1.8
B.C. & Yukon	171,635	20.86	28.44	2.80	1,016	212	7.1	6.7
CANADA	1,755,917	15.28	27.73	1.89	1,471	225	8.3	100.0



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TABLE 1 - COMPARATIVE SUMMARY, 1932-1941

PRINCIPAL DATA BY CLASS OF STATION	1941	1940	1939	1938	1937
<b>WATER POWER PLANTS</b>					
Total .....	607	602	611	589	568
Hydraulic .....	313	313	313	313	314
Fuel .....	294	289	198	276	254
Commercial .....	424	421	427	406	369
Non-commercial .....	183	181	184	183	179
<b>WATER POWER PLANTS (1)</b>					
Total .....	1,641,460,451	1,615,438,140	1,564,603,211	1,545,416,592	1,497,330,231
Commercial .....	1,054,714,025	1,049,506,904	1,014,704,665	1,002,891,485	979,950,159
Municipal .....	586,746,426	565,931,236	549,898,546	542,525,107	517,380,072
Generating .....	1,459,900,540	1,440,026,870	1,396,838,921	1,377,120,289	1,337,399,695
Non-generating .....	181,559,911	175,411,270	167,764,290	168,296,303	159,930,536
<b>WATER POWER PLANTS (2)</b>					
Total .....	186,080,354	166,228,773	151,880,969	144,331,627	143,546,643
Commercial .....	111,851,778	99,887,052	92,535,049	87,697,078	85,283,008
Municipal .....	74,228,576	66,341,721	59,345,920	56,634,549	58,263,635
Generating .....	157,283,409	139,673,392	127,483,222	120,784,939	120,465,135
Non-generating .....	28,796,945	26,555,381	24,397,747	23,546,688	23,081,508
<b>WATER POWER PLANTS (3)</b>					
Total .....	117,758,977	105,044,158	91,982,372	87,364,340	84,185,082
Commercial .....	60,561,621	51,990,160	42,471,534	41,067,998	41,132,931
Municipal .....	57,197,356	53,053,998	49,510,838	46,296,342	43,052,151
Generating .....	69,148,513	60,752,761	51,570,137	48,946,422	46,114,640
Non-generating .....	48,610,464	44,291,397	40,412,235	38,417,918	38,070,442
<b>POLE LINE MILEAGE</b>					
Total .....	77,253	75,050	72,132	66,977	63,035
Commercial .....	31,442	30,933	30,288	29,355	28,332
Municipal .....	45,811	44,117	41,844	37,622	34,703
Generating .....	61,495	59,676	57,084	52,373	48,866
Non-generating .....	15,758	15,374	15,048	14,604	14,169
<b>CUSTOMERS</b>					
Total .....	2,081,270	2,006,508	1,941,663	1,873,621	1,805,995
Domestic service (3) .....	1,755,917	1,686,388	1,623,672	1,559,394	1,500,128
Commercial light .....	268,977	265,175	262,590	259,893	252,305
Power (small) .....	44,071	43,138	43,896	41,999	41,415
Power (large) .....	9,934	9,490	9,267	10,152	10,066
Street lighting .....	2,371	2,317	2,238	2,183	2,081
Commercial stations .....	954,906	926,093	889,418	859,506	833,711
Municipal stations .....	1,126,364	1,086,415	1,052,245	1,014,115	972,284
Generating stations .....	1,079,233	1,032,433	998,067	954,797	916,648
Non-generating stations .....	1,002,037	982,075	943,596	918,824	889,347
<b>ELECTRIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	33,317,663	30,109,263	28,338,030	26,154,160	27,687,645
Commercial .....	24,793,715	22,287,270	21,290,930	19,468,323	20,315,627
Municipal .....	8,523,948	7,822,013	7,047,100	6,665,837	7,372,018
Exports to the United States (4) (thousands) Kw.h. ....	2,354,229	2,132,129	1,908,756	1,822,103	1,843,227
Imports from the United States (4) (thousands) Kw.h. ....	670	655	666	624	1,317
<b>WATER POWER PLANTS (MAIN PLANT ONLY)</b>					
Total Primary Power .....	8,157,585	7,935,867	7,607,122	7,476,976	7,342,085
Total in commercial stations .....	5,917,160	5,708,664	5,385,632	5,300,183	5,203,529
Total in municipal stations .....	2,240,425	2,227,203	2,221,490	2,176,793	2,138,556
Total Secondary Power .....	6,851,785	6,691,211	6,435,416	6,327,868	6,206,465
Total in commercial stations .....	5,054,727	4,906,268	4,654,745	4,586,273	4,496,443
Total in municipal stations .....	1,797,058	1,784,943	1,780,671	1,741,595	1,710,022
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	194,651	194,914	194,139	195,628	197,350
Secondary power .....	166,021	166,367	165,785	166,660	167,839

- (1) Cost of power interchanged between stations excluded from revenue of purchasing stations. (See page 7).
- (2) Includes wages, cost of power, fuel and taxes, but not other expenses.
- (3) Farm service is included with domestic service.
- (4) By central electric stations only. (see page 2).



TABLEAU 1 - SOMMAIRE COMPARATIF, 1932-1941

1936	1935	1934	1933	1932	DONNEES PRINCIPALES PAR CLASSES D'USINES
561 312 249 390 171	566 316 250 397 169	573 314 259 402 171	575 314 261 403 172	572 312 260 402 170	<u>USINES ELECTRIQUES</u> <u>Total</u> Hydrauliques A combustible Commerciales Municipales
1,483,116,649 957,466,865 525,649,784 1,326,820,103 156,296,546	1,459,821,168 962,263,142 497,558,026 1,307,710,173 152,110,995	1,430,852,166 956,382,436 474,469,730 1,281,048,308 149,803,863	1,386,532,055 913,946,953 472,585,102 1,240,169,785 146,362,270	1,335,886,987 880,013,400 455,873,387 1,191,499,567 144,387,420	<u>CAPITAL</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
135,865,173 78,882,504 56,982,669 112,776,015 23,089,158	127,177,954 79,341,554 47,836,400 105,638,584 21,539,370	124,463,613 77,309,001 47,154,612 104,089,041 20,374,572	117,532,081 73,082,078 44,450,003 98,735,084 18,796,997	121,212,679 73,124,089 48,088,590 100,821,712 29,390,967	<u>RESERVE (1)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
77,939,050 36,530,527 41,408,523 41,390,019 36,549,031	79,625,134 33,836,054 45,789,080 43,904,771 35,720,563	75,948,821 31,778,237 44,170,584 40,911,118 35,037,703	73,051,651 29,169,633 43,882,018 38,608,455 34,443,198	74,306,251 30,549,520 43,956,321 40,282,157 34,344,094	<u>DEPENSES (2)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
59,436 27,271 32,165 45,099 14,337	57,602 26,520 31,082 43,572 14,230	56,214 26,476 29,738 42,537 13,677	56,570 25,129 31,441 43,625 12,945	53,845 25,010 28,835 40,675 13,170	<u>LIGNES SUR POTEAUX</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
1,740,793 1,443,059 245,144 40,742 9,840 2,008	1,694,703 1,401,983 240,468 40,292 9,989 1,971	1,660,079 1,379,153 229,187 41,429 8,325 1,985	1,666,882 1,371,806 244,283 40,641 8,160 1,992	1,657,454 1,357,462 248,487 28,942 20,593 1,970	<u>REVENUS</u> <u>Total</u> Service domestique (3) Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
802,676 938,117 866,407 874,386	779,400 915,303 837,278 857,425	760,462 899,617 819,419 840,660	776,581 890,301 843,324 823,558	776,400 881,054 846,420 811,034	Usines commerciales Usines municipales Usines génératrices Usines non-génératrices
25,402,282 18,515,225 6,887,057	23,283,033 17,767,949 5,515,084	21,197,124 16,060,883 5,136,241	17,338,990 13,665,974 3,075,016	16,052,057 12,338,216 3,713,841	<u>ENERGIE ELECTRIQUE GENEREE</u> <u>Total Kw. heures générés (milliers)</u> Commerciale Municipale
1,573,980 765	1,359,021 656	1,243,079 642	983,561 608	659,691 352	Exportations d'électricité aux Etats-Unis (4) .....(milliers) Kw.h. Importations d'électricité des Etats-Unis (4) .....(milliers) Kw.h.
7,119,272 5,012,968 2,106,304 6,025,999 4,340,869 1,685,130	7,104,142 5,138,200 1,965,942 5,893,984 4,317,823 1,576,161	6,854,161 4,961,639 1,892,522 5,699,955 4,179,536 1,520,419	6,616,006 4,707,096 1,908,910 5,491,685 3,956,476 1,535,210	6,343,654 4,577,493 1,766,161 5,278,304 3,860,009 1,418,295	<u>MONTANT DES USINES GENERATRICES</u> (Usines principales seulement) <u>Total force motrice primaire</u> ..... H.P. <u>Total dans les usines commerciales</u> ..... H.P. <u>Total dans les usines municipales</u> ..... H.P. <u>Total force motrice secondaire</u> ..... Kv.A. <u>Total dans les usines commerciales</u> ..... Kv.A. <u>Total dans les usines municipales</u> ..... Kv.A.
200,621 172,327	206,831 176,890	207,431 177,244	193,569 164,732	184,879 157,077	<u>OUTILLAGE D'USINES AUXILIAIRES</u> Force motrice primaire ..... H.P. Force motrice secondaire ..... Kv.A.

(1) Le coût de l'énergie échangée entre stations est exclu du revenu des stations en faisant l'achat. (Voir p. 7.)

(2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

(3) L'éclairage des fermes est inclus dans l'éclairage domestique.

(4) Par usines centrales électriques seulement. (Voir p. 2.)



TABLE 2 - DOMESTIC SERVICE, 1932 - 1941

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
Annee	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	\$
CANADA .....						
1932	1,357,462	1,639,498	56,422,073	1,208	26.83	2.22
1933	1,371,806	1,650,395	55,953,823	1,203	26.21	2.18
1934	1,379,153	1,717,090	56,507,822	1,245	26.47	2.13
1935	1,401,983	1,769,848	56,775,643	1,262	26.23	2.08
1936	1,443,059	1,887,116	58,399,102	1,308	26.61	2.03
1937	1,500,128	2,007,433	59,253,133	1,338	26.17	1.96
1938	1,559,394	2,172,500	41,302,107	1,393	26.49	1.90
1939	1,623,672	2,310,891	43,793,482	1,423	26.97	1.90
1940	x 1,686,398	2,436,572	46,444,357	x 1,445	x 27.54	1.91
1941	1,755,917	2,582,405	48,683,162	1,471	27.73	1.89
Change (Changement) 1932-1941						
Amount (Volume)	398,455	942,907	12,261,089	263	.90	- .33
Per cent (p.c.)	29.35	57.51	33.66	21.77	3.35	- 14.86
PRINCE EDWARD ISLAND ..						
1932	3,978	1,498	129,835	377	32.63	8.67
1933	3,970	1,584	135,231	399	34.06	8.54
1934	4,097	1,605	133,843	392	32.67	8.34
1935	4,199	1,722	154,740	410	32.08	7.82
1936	4,379	2,035	145,442	465	33.21	7.15
1937	4,545	2,232	152,680	491	33.59	6.84
1938	4,799	2,579	150,994	537	31.48	5.85
1939	5,067	2,908	163,226	574	32.21	5.61
1940	5,227	3,076	172,643	588	33.03	5.61
1941	5,531	3,483	183,090	630	33.10	5.26
Change (Changement) 1932-1941						
Amount (Volume)	1,553	1,985	53,255	253	.47	- 3.41
Per cent (p.c.)	39.04	132.51	41.02	67.11	1.44	- 39.33
NOVA SCOTIA .....						
1932	46,421	21,213	1,201,279	457	25.88	5.66
1933	47,124	21,800	1,199,951	463	25.46	5.50
1934	48,852	23,637	1,257,599	484	25.74	5.32
1935	52,300	25,937	1,350,632	496	25.44	5.13
1936	54,763	29,212	1,457,054	533	26.61	4.99
1937	58,165	31,692	1,535,296	545	26.40	4.84
1938	58,556	35,307	1,595,086	603	27.24	4.52
1939	62,034	39,084	1,709,507	630	27.56	4.37
1940	x 65,790	43,277	1,877,812	x 658	x 28.54	4.34
1941	69,997	48,557	2,065,057	691	29.50	4.27
Change (Changement) 1932-1941						
Amount (Volume)	23,576	27,144	863,778	234	3.62	- 1.39
Per cent (p.c.)	50.79	127.96	71.90	51.20	13.99	- 24.56
NEW BRUNSWICK .....						
1932	35,543	19,230	971,597	541	27.34	5.05
1933	34,959	18,740	954,423	536	27.30	5.09
1934	35,364	19,607	962,212	554	27.21	4.91
1935	36,602	20,597	994,695	563	27.18	4.83
1936	38,660	22,049	1,068,038	570	27.63	4.84
1937	41,604	23,488	1,117,953	565	26.87	4.76
1938	43,556	25,367	1,232,937	582	28.31	4.86
1939	46,485	26,989	1,307,772	581	28.13	4.85
1940	50,681	29,388	1,413,237	580	27.88	4.81
1941	52,851	31,234	1,435,015	591	27.16	4.59
Change (Changement) 1932-1941						
Amount (Volume)	17,288	12,004	463,418	50	.18	- .46
Per cent (p.c.)	48.64	62.42	47.70	9.24	.66	- 9.11
QUEBEC .....						
1932	385,211	239,032	8,210,401	621	21.51	3.43
1933	385,175	240,110	7,795,948	623	20.24	3.25
1934	378,705	237,322	7,776,391	627	20.53	3.28
1935	378,388	226,285	7,297,458	598	19.29	3.22
1936	390,711	241,799	7,723,973	619	19.77	3.19
1937	407,155	265,405	8,108,946	652	19.92	3.06
1938	421,178	287,107	8,669,034	682	20.58	3.02
1939	434,825	311,420	9,167,384	716	21.08	2.94
1940	451,791	324,032	9,634,398	717	21.32	2.97
1941	473,547	342,627	10,100,300	724	21.33	2.95
Change (Changement) 1932-1941						
Amount (Volume)	88,336	103,595	1,889,899	103	.02	- .48
Per cent (p.c.)	22.93	43.34	23.02	16.59	.09	- 13.99

TABLEAU 2 - SERVICE DOMESTIQUE, 1932 - 1941

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	\$
<b>ONTARIO</b> .....						
1932	585,343	912,169	16,170,224	1,558	27.63	1.77
1933	598,347	917,649	16,262,707	1,534	27.18	1.77
1934	605,885	980,978	16,811,849	1,619	27.75	1.71
1935	618,111	1,023,929	17,171,434	1,657	27.78	1.68
1936	634,052	1,098,598	17,716,636	1,733	27.94	1.61
1937	660,262	1,174,358	17,718,464	1,779	26.84	1.51
1938	691,498	1,285,568	18,456,575	1,859	26.69	1.44
1939	719,871	1,374,325	19,657,658	1,909	27.31	1.43
1940	745,396	1,459,233	20,928,097	1,958	28.08	1.43
1941	772,153	1,546,189	21,980,031	2,002	28.47	1.42
Change (Changement) 1932-1941						
Amount (Volume)	186,810	634,020	5,809,807	444	.84	- .35
Per cent (p.c.)	31.91	69.51	35.93	28.50	3.04	- 19.77
<b>MANITOBA</b> .....						
1932	71,954	270,272	2,873,481	3,756	39.93	1.06
1933	72,935	275,048	2,743,877	3,771	37.62	1.00
1934	73,545	282,067	2,782,475	3,835	37.83	0.99
1935	74,538	289,314	2,914,963	3,881	39.11	1.01
1936	75,858	296,110	3,029,140	3,903	39.93	1.02
1937	76,516	303,271	3,122,397	3,963	40.81	1.03
1938	77,762	311,793	3,223,605	4,010	41.45	1.03
1939	81,091	320,827	3,311,662	3,956	40.84	1.03
1940	83,404	330,289	3,423,312	3,960	41.04	1.04
1941	85,106	343,041	3,472,277	4,031	40.80	1.01
Change (Changement) 1932-1941						
Amount (Volume)	13,152	72,769	598,796	275	.87	- .05
Per cent (p.c.)	18.28	26.92	20.84	7.32	2.18	- 4.72
<b>SASKATCHEWAN</b> .....						
1932	44,952	36,142	1,802,758	804	40.10	4.99
1933	44,319	36,317	1,775,697	819	40.07	4.89
1934	44,493	34,906	1,741,371	785	39.14	4.99
1935	45,451	35,402	1,795,683	779	39.51	5.07
1936	46,478	36,044	1,851,794	776	39.84	5.14
1937	46,630	37,234	1,852,503	798	39.73	4.98
1938	48,060	39,077	1,903,731	815	39.61	4.87
1939	49,980	41,198	2,004,433	824	40.10	4.87
1940	51,425	43,406	2,093,205	844	40.70	4.82
1941	52,685	45,448	2,173,255	862	41.24	4.78
Change (Changement) 1932-1941						
Amount (Volume)	7,743	9,306	370,497	58	1.14	- .21
Per cent (p.c.)	17.23	25.75	20.55	7.21	2.84	- 4.21
<b>ALBERTA</b> .....						
1932	57,459	29,792	1,714,412	518	29.84	5.75
1933	57,330	29,668	1,728,351	517	30.15	5.83
1934	58,375	30,378	1,764,295	520	30.22	5.81
1935	58,127	31,636	1,714,128	544	29.49	5.42
1936	59,800	33,481	1,789,422	562	30.02	5.34
1937	61,121	35,339	1,865,520	578	30.52	5.28
1938	63,030	38,089	1,983,226	604	31.46	5.21
1939	68,267	42,210	2,145,093	618	31.42	5.08
1940	69,397	45,110	2,275,091	650	32.78	5.04
1941	72,422	47,572	2,393,189	657	33.05	5.03
Change (Changement) 1932-1941						
Amount (Volume)	14,963	17,780	678,777	139	3.21	- .72
Per cent (p.c.)	26.04	59.68	39.59	26.83	10.76	- 12.52
<b>BRITISH COLUMBIA and YUKON</b> .....						
1932	126,601	110,150	3,348,086	870	26.45	3.04
1933	127,647	109,479	3,357,658	858	26.30	3.07
1934	129,837	106,590	3,277,767	821	25.25	3.08
1935	134,267	115,026	3,419,710	857	25.47	2.97
1936	138,558	127,788	3,617,603	922	26.11	2.83
1937	144,130	134,414	3,779,392	933	26.22	2.81
1938	150,955	147,613	4,086,919	978	27.07	2.77
1939	156,052	151,830	4,326,747	974	27.73	2.85
1940	163,277	158,781	4,626,562	972	28.54	2.91
1941	171,635	174,454	4,880,948	1,016	28.44	2.80
Change (Changement) 1932-1941						
Amount (Volume)	45,034	64,304	1,532,862	146	1.99	- .24
Per cent (p.c.)	35.57	58.38	45.78	16.78	7.52	- 7.90



TABLE 3 - ELECTRIC POWER PLANTS, 1941

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Total number of generating stations .....	607	9	47	13	96
Per cent of total for Canada .....	100.00	1.48	7.74	2.14	15.82
<u>COMMERCIAL</u> .....	424	7	20	7	80
Hydraulic .....	205	5	12	4	78
Fuel .....	219	2	8	3	2
<u>MUNICIPAL</u> .....	183	2	27	6	16
Hydraulic .....	108	-	20	3	14
Fuel .....	75	2	7	3	2
With water wheels and turbines .....	313	5	32	7	92
With steam engines only .....	29	-	2	1	-
With steam turbines only .....	24	1	6	1	1
With gas or oil engines only .....	237	3	7	3	3
With both steam engines and turbines .....	4	-	-	1	-
With both steam and gas or oil engines .....	-	-	-	-	-
With alternating current dynamos only .....	467	9	46	11	95
With direct current dynamos only .....	137	-	1	1	1
With both alternating and direct current dynamos	3	-	-	1	-
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 399	8	18	14	68
Number generating power .....	295	6	11	6	41
Number buying power for redistribution .....	104	2	7	8	27
<u>MUNICIPALITIES</u> .....	X 461	2	24	10	29
Number generating power .....	71	2	8	2	10
Number buying power for redistribution .....	390	-	16	8	19
<u>AUXILIARY PLANTS</u> .....	64	2	9	2	9
To hydraulic stations .....	43	2	3	-	8
To non-generating stations .....	21	-	6	2	1

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.



TABEAU 3 - USINES GENERATRICES, 1947

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
136	23	142	72	69	<u>Nombre d'usines génératrices</u>
22.41	3.79	23.39	11.86	11.37	<u>Pourcentage du total pour le Canada</u>
63	14	110	62	61	<u>COMMERCIALES</u>
58	4	-	4	40	Hydrauliques
5	10	110	58	21	A combustible
73	9	32	10	8	<u>MUNICIPALES</u>
64	2	-	-	5	Hydrauliques
9	7	32	10	3	A combustible
122	6	-	4	45	Avec roues et turbines hydrauliques
9	3	1	8	5	Avec machines à vapeur seulement
-	1	7	4	3	Avec turbines à vapeur seulement
5	13	133	54	16	Avec moteurs à gaz ou à pétrole seulement
-	-	1	2	-	Avec machines et turbines à vapeur à la fois
-	-	-	-	-	Avec machines à vapeur à gaz et à pétrole
134	21	50	36	65	Avec dynamos à courant alternatif seulement
2	1	92	35	4	Avec dynamos à courant direct seulement
-	1	-	1	-	Avec dynamos à courant alternatif et direct
63	17	92	64	55	<u>USINES COMMERCIALES</u>
39	10	90	53	39	Nombre d'usines génératrices
24	7	2	11	16	Nombre d'usines achetant de l'électricité pour la revendre
330	10	24	15	17	<u>MUNICIPALITES</u>
14	5	16	8	6	Nombre d'usines génératrices
316	5	8	7	11	Nombre d'usines achetant de l'électricité pour la revendre
8	6	-	8	20	<u>USINES AUXILIAIRES</u>
5	2	-	3	15	Aux usines hydrauliques
3	4	-	-	5	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.

TABLE 4 - CAPITAL, 1941

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL CAPITAL</u> .....	\$ 1,641,460,451	\$ 1,544,150	\$ 40,196,737	\$ 33,622,790	\$ 715,248,667
Per cent of total for Canada .....	100.00	0.09	2.45	2.05	43.58
Generation .....	951,378,908	787,825	23,602,792	23,100,015	499,104,367
Transmission and distribution .....	570,164,086	628,523	13,776,977	9,237,160	162,710,613
General .....	119,917,457	127,802	2,816,968	1,285,615	53,433,687
<u>TOTAL CAPITAL IN COMMERCIAL STATIONS</u> .....	1,054,714,025	1,235,779	19,281,468	22,815,678	705,486,715
Generation .....	708,836,156	597,733	8,701,986	18,602,400	494,210,975
Transmission and distribution .....	266,876,669	534,308	8,247,325	3,485,004	158,510,005
General .....	79,001,200	103,738	2,332,157	728,274	52,765,735
Non-generating stations .....	44,598,950	5,500	7,879,357	1,750,581	665,237
Generating stations .....	1,010,115,075	1,230,279	11,402,111	21,065,097	704,821,478
Hydraulic stations .....	984,875,531	133,743	6,236,165	17,767,214	704,735,044
Fuel stations .....	25,239,544	1,096,536	5,165,946	3,297,883	86,434
<u>TOTAL CAPITAL IN MUNICIPAL STATIONS</u> .....	586,746,426	308,371	20,915,269	10,807,112	9,761,952
Generation .....	242,542,752	190,092	14,900,806	4,497,615	4,893,392
Transmission and distribution .....	303,287,417	94,215	5,529,652	5,752,156	4,200,608
General .....	40,916,257	24,064	484,811	557,341	667,952
Non-generating stations .....	136,960,961	-	2,083,308	1,450,522	2,706,113
Generating stations .....	449,785,465	308,371	18,831,961	9,356,590	7,055,839
Hydraulic stations .....	423,149,907	-	17,454,192	2,829,290	6,728,809
Fuel stations .....	26,635,558	308,371	1,377,769	6,527,300	327,030
<u>TOTAL CAPITAL IN NON-GENERATING STATIONS</u> .....	181,559,911	5,500	9,962,665	3,201,103	3,371,350
Generation .....	3,561,883	-	1,775,199	288,776	696,888
Transmission and distribution .....	149,532,978	5,500	6,140,604	2,361,199	2,475,776
General .....	28,465,050	-	2,046,862	551,128	198,686
<u>TOTAL CAPITAL IN GENERATING STATIONS</u> .....	1,459,900,540	1,538,650	30,234,072	30,421,687	711,877,317
Generation .....	947,817,025	787,825	21,827,593	22,811,239	498,407,479
Transmission and distribution .....	420,631,108	623,023	7,636,373	6,875,961	160,234,837
General .....	91,452,407	127,802	770,106	734,487	53,235,001
Hydraulic stations .....	1,408,025,438	133,743	23,690,357	20,596,504	711,463,853
Fuel stations .....	51,875,102	1,404,907	6,543,715	9,825,183	413,464
<u>TOTAL CAPITAL</u> .....					
Average per H.P. of primary power .....	201	168	233	241	175
Average per H.P. including auxiliary equipment .....	197	165	216	236	174
Average per Kv.A. of dynamo capacity .....	240	222	278	283	201
Average per Kv.A including auxiliary equipment .....	234	221	259	278	200
<u>GENERATION</u> .....					
Average cost per H.P. (including auxiliary equipment)					
In all generating stations .....	114	84	126	163	121
In hydraulic stations .....	116	140	171	177	121
In fuel stations .....	73	80	59	119	85

X - Capital invested in one hydraulic station in Saskatchewan included in Manitoba.



TABLEAU 4 - CAPITAL, 1941

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
590,680,445	X 78,982,909	27,329,710	30,086,170	123,768,873	<u>TOTAL CAPITAL</u>
55.99	4.81	1.66	1.83	7.54	Pourcentage du total pour le Canada
271,995,469	43,743,096	13,324,858	12,963,655	62,756,831	Génération
277,837,033	31,091,093	12,252,555	15,411,668	47,218,464	Transmission et distribution
40,847,943	4,148,720	1,752,297	1,710,847	13,793,578	Généralités
106,515,222	41,496,779	12,832,109	23,461,135	121,589,140	<u>TOTAL CAPITAL DANS LES USINES COMMERCIALES</u>
78,212,095	29,928,522	6,039,440	10,537,910	62,005,095	Génération
21,975,322	10,826,085	5,616,299	11,767,205	45,915,116	Transmission et distribution
6,327,805	742,172	1,176,370	1,156,020	13,668,929	Généralités
2,822,667	1,460,669	1,779,518	122,579	28,112,842	Usines non-génératrices
103,692,555	40,036,110	11,052,591	23,538,556	93,476,298	Usines génératrices
103,674,603	39,649,710	-	19,939,081	92,739,971	Usines hydrauliques
17,952	386,400	11,052,591	3,399,475	736,327	Usines à combustible
484,165,223	37,486,130	14,497,601	6,625,035	2,179,733	<u>TOTAL CAPITAL DANS LES USINES MUNICIPALES</u>
193,783,374	13,814,574	7,285,418	2,425,745	751,736	Génération
255,861,711	20,265,008	6,636,256	3,644,463	1,303,348	Transmission et distribution
34,520,138	3,406,548	575,927	554,827	124,649	Généralités
118,753,869	7,025,743	1,572,143	2,275,104	1,094,159	Usines non-génératrices
365,411,354	30,460,387	12,925,458	4,349,931	1,085,574	Usines génératrices
365,213,064	29,931,567	-	-	992,985	Usines hydrauliques
198,290	528,820	12,925,458	4,349,931	92,589	Usines à combustible
121,576,536	8,486,412	3,351,661	2,397,683	29,207,001	<u>TOTAL CAPITAL DANS LES USINES NON-GENERATRICES</u>
165,248	398,152	-	-	237,620	Génération
102,380,082	6,901,886	3,041,689	2,176,512	24,049,930	Transmission et distribution
19,031,206	1,186,374	309,972	221,371	4,919,451	Généralités
169,103,909	70,496,497	23,978,049	27,688,487	94,561,872	<u>TOTAL CAPITAL DANS LES USINES GENERATRICES</u>
271,830,221	43,344,944	13,324,858	12,963,655	62,519,211	Génération
175,456,951	24,189,207	9,210,866	13,235,356	23,168,534	Transmission et distribution
21,816,737	2,962,546	1,442,325	1,489,476	8,874,127	Généralités
168,887,667	69,581,277	-	19,939,081	93,732,956	Usines hydrauliques
216,242	915,220	23,978,049	7,749,406	828,916	Usines à combustible
258	154	165	205	192	<u>TOTAL CAPITAL</u>
254	145	165	181	178	Moyenne par H.P. de la machinerie d'énergie primaire
321	192	196	250	238	Moyenne par H.P. y compris machinerie auxiliaire
316	180	196	219	220	Moyenne par Kv.A. de la capacité des dynamos
					Moyenne par Kv.A. y compris machinerie auxiliaire
					<u>GENERATION</u>
117	80	80	78	90	<u>Moyenne par H.P. y compris machinerie auxiliaire</u>
117	80	-	109	90	Dans les usines génératrices
121	131	80	44	80	Dans les usines hydrauliques
					Dans les usines à combustible

X - Capital engagé dans une usine hydraulique de la Saskatchewan inclus sous Manitoba.



TABLE 5 - REVENUE, 1941 (1)

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	186,080,354	427,499	7,082,788	4,502,554	70,164,686
domestic service .....	48,683,162	183,090	2,065,057	1,435,015	10,100,300
commercial light .....	29,414,030	117,573	1,282,711	734,496	8,763,124
power (small) .....	11,088,238	36,052	489,335	269,350	2,631,602
power (large) .....	91,826,090	71,523	3,046,433	1,928,014	47,393,417
street lighting .....	5,068,834	19,261	199,252	135,479	1,276,243
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	111,851,778	315,542	4,692,645	2,627,532	68,370,000
generating .....	8,679,429	1,523	2,049,596	460,126	145,352
transmitting .....	103,172,349	314,019	2,643,049	2,167,406	68,224,648
hydraulic .....	97,363,343	25,394	928,380	1,592,407	68,195,221
fuel .....	5,809,006	288,625	1,714,669	574,999	29,427
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	74,228,576	111,957	2,390,143	1,874,822	1,794,686
generating .....	20,117,516	-	427,460	467,578	605,426
transmitting .....	54,111,060	111,957	1,962,683	1,407,244	1,189,260
hydraulic .....	46,916,354	-	1,669,130	84,731	1,100,310
fuel .....	7,194,706	111,957	293,553	1,322,513	88,950
Revenue of non-generating stations .....	28,796,945	1,523	2,477,056	927,704	750,778
Revenue of generating stations .....	157,283,409	425,976	4,605,732	3,574,650	69,413,908
Revenue of hydraulic stations .....	144,279,697	25,394	2,597,510	1,677,138	69,295,531
Revenue of fuel stations .....	13,003,712	400,582	2,008,222	1,897,512	118,377
Average revenue per H.P. of primary power .....	22.81	46.40	40.97	32.21	17.20
Average revenue per H.P. in main and auxiliary plants ...	22.28	45.58	38.13	31.59	17.04
Average revenue per Kv.A. of dynamo capacity .....	27.16	61.55	49.05	37.88	19.76
Average revenue per Kv.A. in main and auxiliary plants ..	26.52	61.13	45.62	37.24	19.57
Average revenue per kilowatt hour consumed ..... Cents	.60	3.60	1.48	.87	.52
Average revenue per domestic service customer .....	27.73	33.10	29.50	27.16	21.33
Average revenue per commercial light customer .....	109.36	91.21	117.25	107.60	114.89
Average revenue per small power customer .....	251.60	255.69	215.76	262.27	239.37
Average revenue per large power customer .....	9,243.62	8,940.38	17,211.49	9,013.98	33,913.91
Average revenue per kilowatt hour - domestic and farm service ..... Cents	1.89	5.26	4.27	4.59	2.95
Average revenue per kilowatt hour - commercial light ..... Cents	2.25	4.73	4.08	3.17	2.70

∕ - Affected by power purchased from another province.

X - Adjusted for power purchased from Quebec plants.

(1) - Gross revenue less cost of power interchanged between stations.

TABLEAU 5 - RECETTES, 1941 (1)

Ontario	Manitoba	Saskatchewan	Alberte	British Columbia and Yukon	
\$	\$	\$	\$	\$	
76,954,003	9,404,906	5,816,640	6,750,594	17,324,272	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
21,980,031	3,472,277	2,173,255	2,393,189	4,880,948	Pour éclairage domestique
9,671,800	1,814,248	1,708,482	1,799,612	3,521,984	Pour éclairage commercial
4,891,586	342,610	782,335	915,513	729,855	Pour force motrice (petite)
58,212,651	3,532,653	862,689	1,364,180	7,761,918	Pour force motrice (grosse)
2,197,935	243,118	289,879	278,100	429,567	Pour éclairage des rues
13,016,167	4,877,286	2,215,212	3,099,044	16,445,141	<u>RECETTES DES USINES COMMERCIALES</u>
3,014,113	219,717	166,346	94,697	4,964,619	Non-génératrices
10,002,054	4,657,569	2,048,866	3,004,347	11,480,522	Génératrices
9,981,068	4,572,572	-	2,218,483	11,219,949	Hydrauliques
20,986	84,997	2,048,866	785,864	280,573	A combustible
63,937,836	4,527,620	3,601,428	3,651,550	879,131	<u>RECETTES DES USINES MUNICIPALES</u>
14,939,529	951,611	790,092	1,443,975	535,937	Non-génératrices
48,998,307	3,576,009	2,811,336	2,207,575	343,194	Génératrices
48,927,786	3,341,292	-	-	289,610	Hydrauliques
70,521	234,717	2,811,336	2,207,575	53,584	A combustible
17,953,642	1,171,328	956,438	1,538,672	5,500,556	Recettes des usines non-génératrices
59,000,361	8,233,578	4,860,202	5,211,922	11,823,716	Recettes des usines génératrices
58,908,854	7,913,864	-	2,218,483	11,509,559	Recettes des usines hydrauliques
91,507	319,714	4,860,202	2,993,439	314,157	Recettes des usines à combustible
X 23.63	18.35	35.10	45.93	26.84	Moyenne de recettes par H.P. de machinerie primaire
X 23.33	17.30	35.10	40.68	24.90	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
X 30.03	22.88	41.63	56.05	33.24	Moyenne de recettes par Kv.A. de capacité de dynamos
X 29.64	21.38	41.63	49.24	30.86	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
.66	.49	2.96	2.09	.70	Moyenne de recettes par Kw. heure ..... (cents)
28.47	40.33	41.24	33.05	28.44	Moyenne de recettes par abonnés d'éclairage domestique
102.67	100.98	108.51	105.70	122.70	Moyenne de recettes par abonnés d'éclairage commercial
364.64	103.60	286.26	166.64	155.55	Moyenne de recettes par abonnés pour petite force motrice
7,150.17	1,088.64	6,687.51	3,540.97	11,232.88	Moyenne de recettes par abonnés pour grosse force motrice
1.42	1.01	4.78	5.03	2.80	Moyenne de recettes par Kw. heure-service domestique et de ferme ..... (cents)
1.49	2.00	4.92	4.39	3.18	Moyenne de recettes par Kw. heure - service commercial (cents)

\* - Affecté par énergie achetée d'une autre province.

X - Adjusté pour achats de courant des usines du Québec.

(1) - Revenu brut moins le coût de l'énergie échangée entre stations.



TABLE 6 - EXPENSES, 1941

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<b>TOTAL EXPENSES</b> .....	117,758,977	214,365	5,039,987	2,058,255	32,420,426
Per cent of total for Canada .....	100.00	0.18	4.28	1.75	27.53
Salaries and wages .....	31,647,952	76,720	1,336,924	589,911	8,135,372
Fuel .....	2,933,928	82,972	819,205	366,627	43,329
Taxes (x) .....	23,975,176	52,921	1,160,633	258,412	14,794,861
Cost of power .....	59,201,921	1,752	1,723,225	843,305	9,446,864
<b>TOTAL FOR COMMERCIAL STATIONS</b> .....	60,561,621	179,663	3,817,034	1,161,293	31,645,698
Salaries and wages .....	15,537,787	66,189	987,500	301,516	7,820,843
Fuel .....	1,644,195	58,801	735,640	156,247	7,150
Taxes .....	22,901,212	52,921	1,140,365	258,279	14,777,111
Cost of power .....	20,478,427	1,752	953,529	445,251	9,040,594
Non-generating stations .....	12,035,516	1,752	2,318,494	669,190	92,303
Generating stations .....	48,526,105	177,911	1,498,540	492,103	31,553,395
Hydraulic stations .....	45,332,546	13,122	391,210	194,756	31,535,109
Fuel stations .....	3,193,559	164,789	1,107,330	297,347	18,286
<b>TOTAL FOR MUNICIPAL STATIONS</b> .....	57,197,356	34,702	1,222,953	896,962	774,728
Salaries and wages .....	16,110,165	10,531	349,424	288,395	314,529
Fuel .....	1,289,733	24,171	83,565	210,380	36,179
Taxes .....	1,073,964	-	20,268	133	17,750
Cost of power .....	38,723,494	-	769,696	398,054	406,270
Non-generating stations .....	36,574,948	-	762,420	476,672	440,174
Generating stations .....	20,622,408	34,702	460,533	420,290	334,554
Hydraulic stations .....	17,964,638	-	181,773	15,094	291,863
Fuel stations .....	2,657,770	34,702	278,760	405,196	42,691
<b>TOTAL EXPENSES FOR NON-GENERATING STATIONS</b> .....	48,610,464	1,752	3,080,914	1,145,862	532,477
Salaries and wages .....	8,690,063	-	688,776	222,593	151,631
Fuel .....	88,918	-	86,681	-	-
Taxes .....	3,012,556	-	830,682	110,546	9,899
Cost of power .....	36,818,927	1,752	1,474,775	812,723	370,947
<b>TOTAL EXPENSES FOR GENERATING STATIONS</b> .....	69,148,513	212,613	1,959,073	912,393	31,887,949
Salaries and wages .....	22,957,889	76,720	848,148	367,318	7,983,741
Fuel .....	2,845,010	82,972	732,524	366,627	43,329
Taxes .....	20,962,620	52,921	329,951	147,866	14,784,962
Cost of power .....	22,382,994	-	248,450	30,582	9,075,917
Hydraulic stations .....	63,297,184	13,122	572,983	209,850	31,826,972
Fuel stations .....	5,851,329	199,491	1,386,090	702,543	60,977

(x) Federal sales tax not included ..... 4,160,763 14,802 171,061 115,337 968,127

Includes only the four items listed.



TABLEAU 6 - DEPENSES, 1941

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
58,091,118	2,776,059	3,011,918	3,067,766	11,079,103	<u>TOTAL DES DEPENSES</u>
49.35	2.36	2.56	2.60	9.41	Pourcentage du total pour le Canada
14,416,867	1,938,257	1,004,922	1,149,071	2,999,908	Salaires et gages
24,339	78,425	927,455	398,801	192,775	Combustible
2,878,038	216,674	333,773	592,384	3,687,480	Taxes (x)
40,771,874	542,683	745,768	927,510	4,198,940	Achat d'énergie électrique
9,472,631	1,191,876	1,171,044	1,293,878	10,628,504	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,757,876	756,539	415,862	582,474	2,848,968	Salaires et gages
6,884	15,217	352,131	128,480	183,645	Combustible
2,159,693	126,755	280,658	418,196	3,687,234	Taxes
5,548,178	293,365	122,373	164,728	3,908,657	Achat d'énergie électrique
2,810,394	324,022	112,570	43,691	5,663,100	Usines non-génératrices
6,662,237	867,854	1,058,474	1,250,187	4,965,404	Usines génératrices
6,657,447	826,967	-	866,413	4,847,522	Usines hydrauliques
4,790	40,887	1,058,474	383,774	117,882	Usines à combustible
48,618,487	1,584,165	1,840,874	1,773,888	450,599	<u>TOTAL POUR LES USINES MUNICIPALES</u>
12,658,991	1,181,718	589,040	566,597	150,940	Salaires et gages
17,455	63,208	575,324	270,321	9,130	Combustible
718,345	89,919	53,115	174,188	246	Taxes
35,223,696	249,318	623,395	762,782	290,283	Achat d'énergie électrique
32,244,057	402,689	723,900	1,149,151	375,885	Usines non-génératrices
16,374,430	1,181,474	1,116,974	624,737	74,714	Usines génératrices
16,343,058	1,077,801	-	-	55,049	Usines hydrauliques
31,372	103,673	1,116,974	624,737	19,665	Usines à combustible
35,054,451	726,711	836,470	1,192,842	6,038,985	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
5,780,756	169,259	121,418	245,247	1,310,383	Salaires et gages
1,434	302	-	-	501	Combustible
430,298	14,467	56,963	153,824	1,405,877	Taxes
28,841,963	542,683	658,089	793,771	3,322,224	Achat d'énergie électrique
25,036,667	2,049,328	2,175,448	1,874,924	5,040,118	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
8,636,111	1,768,998	883,504	903,824	1,689,525	Salaires et gages
22,905	78,123	927,455	398,801	192,274	Combustible
2,447,740	202,207	276,810	438,560	2,281,603	Taxes
11,929,911	-	87,679	133,739	876,716	Achat d'énergie électrique
23,000,505	1,904,768	-	866,413	4,902,571	Usines hydrauliques
36,162	144,560	2,175,448	1,008,511	137,547	Usines à combustible

1,766,042 307,452 192,020 196,241 429,681 ..... Taxe fédérale des ventes non comprises. (x)

\* Ne comprend que les quatre item énumérés.

TABLE 7 - EMPLOYEES, 1941

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	19,880	68	1,154	522	5,232
Per cent of total for Canada .....	100.00	0.34	5.80	2.63	26.32
Officers, clerks, other salaried employees, etc.	7,930	33	389	257	1,646
Employees on wages .....	11,950	35	765	265	3,586
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	10,014	57	749	256	4,979
Officers, clerks, other salaried employees, etc.	3,348	22	218	93	1,546
Employees on wages .....	6,666	35	531	163	3,433
Non-generating .....	1,313	-	381	107	23
Generating .....	8,701	57	368	149	4,956
Hydraulic .....	7,931	11	234	74	4,946
Fuel .....	770	46	134	75	10
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	9,866	11	405	200	253
Officers, clerks, other salaried employees, etc.	4,582	11	171	164	100
Employees on wages .....	5,284	-	234	102	153
Non-generating .....	4,304	-	95	77	91
Generating .....	5,562	11	310	189	162
Hydraulic .....	4,712	-	224	15	156
Fuel .....	850	11	86	174	6
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	5,617	-	476	184	114
Officers, clerks, other salaried employees, etc.	2,971	-	219	101	55
Employees on wages .....	2,646	-	257	83	59
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	14,263	68	678	338	5,118
Officers, clerks, other salaried employees, etc.	4,959	33	170	156	1,591
Employees on wages .....	9,304	35	508	182	3,527
Hydraulic .....	12,643	11	458	89	5,102
Fuel .....	1,620	57	220	249	16

TABLEAU 7 - EMPLOYEES, 1941

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
8,337	1,384	656	732	1,795	<u>TOTAL DU PERSONNEL OCCUPE</u>
41.94	6.96	3.30	3.68	9.03	Pourcentage du total pour le Canada
3,397	874	260	305	769	Administrateurs, directeurs, commis et tous employés des bureaux
4,940	510	396	427	1,026	Ouvriers et journaliers
1,117	487	296	378	1,695	<u>PERSONNEL DES USINES COMMERCIALES</u>
274	193	111	164	727	Administrateurs, directeurs, commis et tous employés des bureaux
843	294	185	214	968	Ouvriers et journaliers
53	12	14	8	715	Non-génératrices
1,064	475	282	370	980	Génératrices
1,062	454	-	214	936	Hydrauliques
2	21	282	156	44	Combustible
7,220	897	360	354	100	<u>PERSONNEL DES USINES MUNICIPALES</u>
3,123	681	111	111	22	Administrateurs, directeurs, commis et tous employés des bureaux
4,097	213	211	213	58	Ouvriers et journaliers
3,535	237	59	153	57	Non-génératrices
3,685	660	301	201	43	Génératrices
3,670	611	-	-	36	Hydrauliques
15	49	301	201	7	Combustible
3,588	249	73	161	772	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,857	161	41	94	443	Administrateurs, directeurs, commis et tous employés des bureaux
1,731	88	32	67	329	Ouvriers et journaliers
4,749	1,135	583	571	1,023	<u>PERSONNEL DES USINES GENERATRICES</u>
1,540	713	219	211	326	Administrateurs, directeurs, commis et tous employés des bureaux
3,209	422	364	360	697	Ouvriers et journaliers
4,732	1,065	-	214	972	Hydrauliques
17	70	583	357	51	Combustible



TABLE 8 - NUMBER OF CUSTOMERS, 1941

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>NUMBER OF CUSTOMERS</b> .....	2,081,270	6,980	85,464	60,929	562,992
Per cent of total for Canada .....	100.00	0.34	4.01	2.93	27.05
Domestic service .....	1,755,917	5,831	69,997	52,831	473,547
Commercial light .....	268,977	1,289	10,940	6,826	76,274
Power (small) .....	44,071	141	2,268	1,027	10,994
Power (large) .....	9,934	8	177	209	1,378
Street lighting .....	2,371	11	82	36	799
<b>COMMERCIAL STATIONS</b> .....	954,906	5,524	52,199	25,682	517,396
Domestic service .....	788,375	4,444	43,598	21,134	433,936
Commercial light .....	139,781	988	6,982	3,786	71,317
Power (small) .....	21,555	76	1,487	678	10,098
Power (large) .....	4,009	7	93	66	1,280
Street lighting .....	1,586	9	39	18	765
Non-generating .....	207,728	115	39,070	15,594	4,439
Generating .....	747,178	5,409	13,129	10,088	512,957
Hydraulic .....	688,700	764	9,010	1,997	512,465
Fuel .....	58,478	4,645	4,119	8,091	492
<b>MUNICIPAL STATIONS</b> .....	1,126,364	1,456	31,265	35,247	45,596
Domestic service .....	967,542	1,087	26,399	31,697	39,611
Commercial light .....	129,196	301	3,958	3,040	4,957
Power (small) .....	22,716	65	761	349	896
Power (large) .....	5,925	1	84	143	98
Street lighting .....	985	2	43	18	34
Non-generating .....	794,309	-	19,629	15,057	22,700
Generating .....	332,055	1,456	11,636	20,190	22,896
Hydraulic .....	237,758	-	6,165	1,617	21,746
Fuel .....	94,297	1,456	5,471	18,573	1,150
<b>NON-GENERATING STATIONS</b> .....	1,002,037	115	58,699	30,651	27,139
Domestic service .....	846,807	83	48,974	26,092	23,596
Commercial light .....	129,982	32	7,650	3,933	2,910
Power (small) .....	20,715	-	1,739	465	549
Power (large) .....	3,812	-	90	140	31
Street lighting .....	721	-	46	21	53
<b>GENERATING STATIONS</b> .....	1,079,233	6,865	24,765	30,278	535,853
Hydraulic stations .....	926,458	764	15,175	3,614	534,211
Domestic service .....	789,919	622	12,956	2,930	448,777
Commercial light .....	111,640	138	1,835	581	72,926
Power (small) .....	18,061	-	300	82	10,419
Power (large) .....	5,624	1	59	18	1,346
Street lighting .....	1,214	3	25	3	743
Fuel stations .....	152,775	6,101	9,590	26,664	1,642
Domestic service .....	119,191	4,826	8,067	28,909	1,174
Commercial light .....	27,355	1,119	1,255	2,312	438
Power (small) .....	5,295	141	229	480	26
Power (large) .....	498	7	23	51	1
Street lighting .....	436	8	11	12	3
<b>Average number of domestic service customers per 100 of population</b> .....	15.28	5.82	12.11	11.55	14.21

TABLEAU 8 - NOMBRE D'USAGERS, 1941

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
884,101	109,811	71,639	95,526	205,828	<u>NOMBRE D'USAGERS</u>
42.48	5.27	3.44	4.59	9.89	Pourcentage du total pour le Canada
772,153	85,106	52,695	72,422	171,635	Service domestique
94,205	17,967	15,745	17,026	28,705	Eclairage commercial
13,415	3,307	2,733	5,494	4,692	Force motrice (petite)
3,720	3,245	129	377	691	Force motrice (grosse)
608	186	337	207	105	Eclairage des rues
77,074	33,739	27,460	31,148	184,684	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
65,572	24,750	19,579	20,960	154,402	Service domestique
9,939	7,075	6,625	7,638	25,431	Eclairage commercial
1,115	461	1,031	2,276	4,133	Force motrice (petite)
374	1,432	44	84	629	Force motrice (grosse)
74	21	181	190	89	Eclairage des rues
5,471	8,137	2,902	2,361	129,639	Non-génératrices
71,603	25,602	24,558	28,787	55,045	Génératrices
71,188	24,007	-	16,524	52,745	Hydrauliques
415	1,595	24,558	12,263	2,300	Combustible
807,027	76,072	44,179	64,378	21,144	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
706,581	60,356	33,116	51,462	17,233	Service domestique
84,266	10,892	9,120	9,388	3,274	Eclairage commercial
12,300	2,846	1,702	3,218	559	Force motrice (petite)
3,346	1,813	85	293	62	Force motrice (grosse)
534	165	156	17	16	Eclairage des rues
654,128	20,748	15,856	30,205	15,986	Non-génératrices
152,899	55,324	28,323	34,173	5,158	Génératrices
151,662	52,169	-	-	4,399	Hydrauliques
1,237	3,155	28,323	34,173	759	Combustible
659,599	28,885	18,758	32,566	145,625	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
562,928	22,702	13,991	26,250	122,191	Service domestique
82,133	4,978	3,725	4,463	19,958	Eclairage commercial
11,432	815	939	1,775	3,001	Force motrice (petite)
2,786	231	46	62	426	Force motrice (grosse)
320	159	57	16	49	Eclairage des rues
224,502	80,926	52,881	62,960	60,203	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
222,850	76,176	-	16,524	57,144	Usines hydrauliques
207,846	58,857	-	10,669	47,262	Service domestique
11,880	12,045	-	4,231	8,004	Eclairage commercial
1,909	2,304	-	1,466	1,581	Force motrice (petite)
931	2,960	-	53	256	Force motrice (grosse)
284	10	-	105	41	Eclairage des rues
1,652	4,750	52,881	46,436	3,059	Usines à combustible
1,379	3,547	38,704	35,503	2,182	Service domestique
192	944	12,020	8,332	743	Eclairage commercial
74	188	1,794	2,253	110	Force motrice (petite)
3	54	83	262	9	Force motrice (grosse)
4	17	280	86	15	Eclairage des rues
20.39	11.66	5.88	9.10	20.86	Moyenne de consommateurs d'éclairage électrique par 100 habitants



TABLE 9 - POLE LINE MILEAGE, 1941

	Canada	Prince Edward Island	Novo Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	77,253	300	4,148	3,252	14,287
Per cent of total for Canada .....	100.00	0.39	5.37	4.21	18.49
Miles of steel towers .....	5,289	-	21	243	1,242
Miles of steel poles .....	305	-	1	-	237
Miles of wooden poles .....	69,017	297	4,115	3,006	12,059
Miles of concrete poles .....	567	-	-	1	-
Miles of underground and submarine cables .....	2,075	3	11	2	749
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	31,442	276	2,019	705	13,744
Non-generating .....	5,037	10	847	248	321
Generating .....	26,405	266	1,172	457	13,423
Hydraulic .....	23,625	53	966	255	13,410
Fuel .....	2,780	213	206	202	13
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	45,811	24	2,129	2,547	543
Non-generating .....	10,721	-	463	179	170
Generating .....	35,090	24	1,666	2,368	373
Hydraulic .....	29,721	-	1,220	29	352
Fuel .....	5,369	24	446	2,339	21
<u>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</u> .....	15,758	10	1,310	427	491
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	61,495	290	2,838	2,825	13,796
Hydraulic .....	53,346	53	2,186	284	13,762
Fuel .....	8,149	237	652	2,541	34

TABLE 10 - AUXILIARY PLANT EQUIPMENT, 1941

<u>TOTAL PRIMARY POWER</u> .....	H.P.	194,651	165	12,893	2,725	37,511
Per cent of total for Canada .....		100.00	0.09	6.62	1.40	19.17
Steam reciprocating engines .....	No.	29	1	9	2	1
Total capacity .....	H.P.	12,126	75	3,913	800	60
Steam turbines .....	No.	44	-	3	3	8
Total capacity .....	H.P.	172,104	-	7,390	1,925	36,224
Gas and oil engines .....	No.	50	2	7	-	5
Total capacity .....	H.P.	10,421	90	1,590	-	1,027
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	166,021	48	10,839	2,035	35,894
<u>COMMERCIAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	130,647	165	12,230	2,725	25,675
Steam reciprocating engines .....	No.	20	-	7	2	1
Total capacity .....	H.P.	7,828	-	3,490	800	60
Steam turbines .....	No.	35	1	3	3	6
Total capacity .....	H.P.	115,240	75	7,390	1,925	25,500
Gas and oil engines .....	No.	36	2	4	-	3
Total capacity .....	H.P.	7,579	90	1,350	-	115
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	109,903	48	10,303	2,035	23,128
<u>MUNICIPAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	64,004	-	663	-	11,636
Steam reciprocating engines .....	No.	9	-	2	-	-
Total capacity .....	H.P.	4,298	-	423	-	-
Steam turbines .....	No.	9	-	-	-	-
Total capacity .....	H.P.	56,864	-	-	-	10,72
Gas and oil engines .....	No.	14	-	3	-	-
Total capacity .....	H.P.	2,842	-	240	-	91
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	56,118	-	536	-	10,76



TABLEAU 9 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1941

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
36,881	4,207	4,067	4,410	5,701	<u>LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX</u>
47.74	5.45	5.26	5.71	7.38	Pourcentage du total pour tout le Canada
2,970	743	-	31	39	Milles de pylones d'acier
67	-	-	-	-	Milles de poteaux d'acier
32,199	3,429	4,042	4,307	5,563	Milles de poteaux de bois
566	-	-	-	-	Milles de poteaux de ciment
1,079	35	25	72	99	Milles de cables souterrains et sous-marins
2,667	1,434	1,863	3,504	5,230	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
217	215	746	49	2,384	Non-génératrices
2,450	1,219	1,117	3,455	2,846	Génératrices
2,437	1,141	-	2,588	2,775	Hydrauliques
13	78	1,117	867	71	A combustible
34,214	2,773	2,204	906	471	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
7,060	1,877	206	452	314	Non-génératrices
27,154	896	1,998	454	157	Génératrices
27,125	857	-	-	138	Hydrauliques
29	39	1,998	454	19	A combustible
7,277	2,092	952	501	2,698	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
29,604	2,115	3,115	3,909	5,913	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GENERATRICES</u>
29,562	1,998	-	2,588	2,913	Hydrauliques
42	117	3,115	1,321	90	A combustible

TABLEAU 10 - OUTILLAGE AUXILIAIRE, 1941

41,175	31,090	-	18,963	50,329	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
21.15	15.97	-	9.74	25.86	Pourcentage du total pour tout le Canada
4	1	-	7	4	Machines à vapeur, à mouvement alternatif .....Nomb.
1,600	1,750	-	2,753	1,175	Capacité totale .....H.P.
4	7	-	4	15	Turbines à vapeur .....Nomb.
38,000	28,490	-	15,000	45,075	Capacité totale .....H.P.
4	7	-	7	18	Moteurs à gaz et à pétrole .....Nomb.
1,575	850	-	1,210	4,079	Capacité totale .....H.P.
3,497	28,711	-	16,662	40,335	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....Kv.A.
0,075	12,000	-	18,963	48,814	<u>USINES COMMERCIALES</u>
-	-	-	7	2	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
-	-	-	2,753	650	Machines à vapeur, à mouvement alternatif .....Nomb.
2	3	-	4	14	Capacité totale .....H.P.
3,500	12,000	-	15,000	44,925	Turbines à vapeur .....Nomb.
4	-	-	7	16	Capacité totale .....H.P.
1,575	-	-	1,210	3,239	Moteurs à gaz et à pétrole .....Nomb.
7,282	11,250	-	16,662	39,198	Capacité totale .....H.P.
1,100	19,090	-	-	1,515	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....Kv.A.
4	1	-	-	2	<u>USINES MUNICIPALES</u>
1,600	1,750	-	-	525	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
2	4	-	-	1	Machines à vapeur, à mouvement alternatif .....Nomb.
1,500	16,490	-	-	150	Capacité totale .....H.P.
-	7	-	-	2	Turbines à vapeur .....Nomb.
-	850	-	-	840	Capacité totale .....H.P.
215	17,461	-	-	1,137	Moteurs à gaz et à pétrole .....Nomb.
					Capacité totale .....H.P.
					<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....Kv.A.

TABLE 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1941

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL PRIMARY POWER</u> ..... H.P.	8,352,236	9,879	185,767	142,503	4,116,713
Per cent of total for Canada .....	100.00	0.11	2.22	1.71	49.29
Water wheels and turbines ..... No.	841	7	57	16	273
Total capacity ..... H.P.	7,784,400	392	102,990	105,760	4,076,552
Steam reciprocating engines ..... No.	66	1	11	7	1
Total capacity ..... H.P.	21,731	75	4,488	3,980	60
Steam turbines ..... No.	115	4	17	9	9
Total capacity ..... H.P.	495,735	6,680	75,826	32,005	36,374
Gas and oil engines ..... No.	503	13	21	5	12
Total capacity ..... H.P.	50,370	2,282	2,463	758	3,727
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	7,017,806	6,993	155,248	120,897	3,584,798
Per cent of total for Canada .....	100.00	0.10	2.21	1.72	51.08
Dynamos, A.C. .... No.	1,274	21	102	35	289
Total capacity ..... Kv.A.	7,011,787	6,993	154,908	120,047	3,584,778
Dynamos, D.C. .... No.	222	-	2	2	1
Total capacity ..... Kw.	6,019	-	340	850	20
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	6,047,807	7,314	97,544	112,865	4,071,847
Water wheels and turbines ..... No.	558	7	19	10	247
Total capacity ..... H.P.	5,753,150	392	21,740	92,900	4,045,842
Steam reciprocating engines ..... No.	41	1	9	7	1
Total capacity ..... H.P.	13,180	75	4,065	3,980	60
Steam turbines ..... No.	71	4	14	6	7
Total capacity ..... H.P.	253,020	6,680	70,245	15,625	25,650
Gas and oil engines ..... No.	375	5	6	1	5
Total capacity ..... H.P.	28,457	167	1,494	360	295
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	5,164,630	5,287	82,694	96,216	3,548,504
Dynamos, A.C. .... No.	825	13	44	22	254
Total capacity ..... Kv.A.	5,160,253	5,287	82,354	95,366	3,548,484
Dynamos, D.C. .... No.	195	-	2	2	1
Total capacity ..... Kw.	4,377	-	340	850	20
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	2,304,429	2,065	88,223	29,638	44,866
Water wheels and turbines ..... No.	283	-	38	6	26
Total capacity ..... H.P.	2,081,250	-	81,250	12,860	30,710
Steam reciprocating engines ..... No.	25	-	2	-	-
Total capacity ..... H.P.	8,551	-	423	-	-
Steam turbines ..... No.	44	-	3	3	2
Total capacity ..... H.P.	242,715	-	5,581	16,380	10,724
Gas and oil engines ..... No.	128	8	15	4	7
Total capacity ..... H.P.	21,913	2,065	969	398	3,432
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	1,853,176	1,706	72,554	24,681	36,294
Dynamos, A.C. .... No.	449	8	58	13	35
Total capacity ..... Kv.A.	1,851,534	1,706	72,554	24,681	36,294
Dynamos, D.C. .... No.	27	-	-	-	-
Total capacity ..... Kw.	1,642	-	-	-	-



TABLEAU 11 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1941.

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,326,854	543,529	165,703	165,943	695,845	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H.P.
27.86	6.51	1.98	1.99	8.33	Pourcentage du total pour le Canada
353	43	-	9	83	Turbines et roues hydrauliques ..... Nomb.
2,284,389	508,300	-	68,180	637,837	Capacité totale ..... H.P.
12	5	1	19	9	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,950	2,303	750	6,481	1,644	Capacité totale ..... H.P.
4	9	25	19	19	Turbines à vapeur ..... Nomb.
38,000	29,740	142,300	85,395	49,415	Capacité totale ..... H.P.
11	35	243	112	51	Moteurs à gaz et à pétrole ..... Nomb.
2,515	3,186	22,653	5,887	6,949	Capacité totale ..... H.P.
1,871,736	439,853	139,718	137,099	561,464	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
26.67	6.27	1.99	1.96	8.00	Pourcentage du total pour le Canada
373	89	127	85	153	Dynamos, C.A. .... Nomb.
1,871,691	439,817	138,011	134,233	561,309	Capacité totale ..... Kv.A.
2	3	138	67	7	Dynamos, C.D. .... Nomb.
45	36	1,707	2,866	155	Capacité totale ..... Kw.
553,019	366,649	57,378	97,611	683,580	<u>USINES COMMERCIALES</u>
169	23	-	9	74	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
542,729	353,300	-	68,180	628,067	Turbines et roues hydrauliques ..... Nomb.
4	-	-	14	5	Capacité totale ..... H.P.
165	-	-	3,771	1,064	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	3	11	6	18	Capacité totale ..... H.P.
8,500	12,000	44,755	20,300	49,265	Turbines à vapeur ..... Nomb.
5	21	184	103	45	Capacité totale ..... H.P.
1,625	1,349	12,623	5,360	5,184	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
464,787	290,422	47,066	76,992	552,662	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
176	44	73	65	134	Dynamos, C.A. .... Nomb.
464,777	290,386	45,777	75,315	552,507	Capacité totale ..... Kv.A.
1	3	117	62	7	Dynamos, C.D. .... Nomb.
10	36	1,289	1,677	155	Capacité totale ..... Kw.
1,773,835	176,880	108,325	68,332	12,265	<u>USINES MUNICIPALES</u>
184	20	-	-	9	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
1,741,660	155,000	-	-	9,770	Turbines et roues hydrauliques ..... Nomb.
8	5	1	5	4	Capacité totale ..... H.P.
1,785	2,303	750	2,710	580	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	6	14	13	1	Capacité totale ..... H.P.
29,500	17,740	97,545	65,095	150	Turbines à vapeur ..... Nomb.
6	14	59	9	6	Capacité totale ..... H.P.
890	1,837	10,030	527	1,765	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
1,406,949	149,431	92,652	60,107	8,802	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
197	45	54	20	19	Dynamos, C.A. .... Nomb.
1,406,914	149,431	92,234	58,918	8,802	Capacité totale ..... Kv.A.
1	-	21	5	-	Dynamos, C.D. .... Nomb.
35	-	418	1,189	-	Capacité totale ..... Kw.



TABLE 12 - MAIN POWER STATIONS, 1941

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.	8,157,585	9,214	172,874	139,778	4,079,402
Per cent of total for Canada .....	100.00	0.11	2.12	1.71	50.01
Water wheels and turbines ..... No.	841	7	57	16	273
Total capacity ..... H.P.	7,784,400	392	102,990	105,760	4,076,552
Steam reciprocating engines ..... No.	87	-	2	5	-
Total capacity ..... H.P.	5,201	-	578	3,180	-
Steam turbines ..... No.	71	4	14	6	1
Total capacity ..... H.P.	323,631	6,280	68,436	60,080	1,800
Gas and oil engines ..... No.	453	11	14	5	7
Total capacity ..... H.P.	39,949	1,112	875	733	1,700
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	6,851,785	6,945	144,409	118,862	3,550,904
Per cent of total for Canada .....	100.00	0.10	2.11	1.73	51.92
Dynamos, A.C. .... No.	1,165	20	86	30	279
Total capacity ..... Kv.A.	6,847,166	6,945	144,369	118,012	3,550,864
Dynamos, D.C. .... No.	219	-	1	2	1
Total capacity ..... Kw.	4,619	-	40	850	20
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	5,917,160	7,149	88,514	110,140	4,046,172
Per cent of total for Canada .....	100.00	0.12	1.44	1.86	68.38
Water wheels and turbines ..... No.	558	7	13	17	247
Total capacity ..... H.P.	5,753,150	332	21,740	92,900	4,045,842
Steam reciprocating engines ..... No.	21	-	2	5	-
Total capacity ..... H.P.	5,832	-	578	3,180	-
Steam turbines ..... No.	36	4	11	3	1
Total capacity ..... H.P.	137,780	6,880	62,886	13,700	150
Gas and oil engines ..... No.	339	3	2	1	2
Total capacity ..... H.P.	20,378	77	144	360	180
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	5,054,727	5,132	72,391	93,141	3,525,379
Per cent of total for Canada .....	100.00	0.10	1.43	1.86	69.75
Dynamos, A.C. .... No.	747	12	33	17	248
Total capacity ..... Kv.A.	5,051,750	5,239	72,351	93,331	3,525,359
Dynamos, D.C. .... No.	192	-	1	2	1
Total capacity ..... Kw.	2,977	-	40	850	20
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	2,240,425	2,065	27,560	22,658	33,230
Per cent of total for Canada .....	100.00	0.09	1.23	1.01	1.48
Water wheels and turbines ..... No.	283	-	38	6	26
Total capacity ..... H.P.	2,031,250	-	81,250	12,880	30,710
Steam reciprocating engines ..... No.	16	-	-	-	-
Total capacity ..... H.P.	4,253	-	-	-	-
Steam turbines ..... No.	25	-	3	3	-
Total capacity ..... H.P.	185,851	-	1,381	16,390	-
Gas and oil engines ..... No.	114	8	12	4	5
Total capacity ..... H.P.	19,071	2,065	729	308	2,620
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	1,797,058	1,708	72,016	24,661	25,525
Per cent of total for Canada .....	100.00	0.09	4.01	1.37	1.42
Dynamos, A.C. .... No.	418	8	53	13	31
Total capacity ..... Kv.A.	1,795,416	1,708	72,016	24,661	25,525
Dynamos, D.C. .... No.	27	-	-	-	-
Total capacity ..... Kw.	1,642	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	6,534,559	359	88,084	91,233	3,541,532
Per cent of total for Canada .....	100.00	0.01	1.37	1.40	54.31
Dynamos, A.C. .... No.	833	6	57	15	271
Total capacity ..... Kv.A.	6,534,269	359	88,084	91,038	3,541,512
Dynamos, D.C. .... No.	4	-	-	1	1
Total capacity ..... Kw.	290	-	-	200	20
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	317,226	6,586	61,325	27,424	2,372
Per cent of total for Canada .....	100.00	2.08	19.33	8.71	0.75
Dynamos, A.C. .... No.	332	14	29	13	8
Total capacity ..... Kv.A.	317,397	6,586	61,325	27,374	2,372
Dynamos, D.C. .... No.	115	-	1	1	-
Total capacity ..... Kw.	4,329	-	40	650	-

X - Capacity of one hydraulic station in Saskatchewan included in Manitoba.

TABLEAU 12 - OUTILLAGE DES USINES PRINCIPALES, 1941

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,285,679 28.02 353 2,284,389 8 350 - - 7 940	X 512,439 6.28 43 508,300 4 - 1,250 28 2,336	165,703 2.03 - - 750 25 142,300 243 22,653	146,980 1.80 9 68,180 12 3,728 15 70,395 105 4,677	645,516 7.92 83 637,837 5 469 4 4,340 33 2,870	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Roues hydrauliques et turbines ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
1,838,239 26.83 362 1,838,194 2 45	411,142 6.00 74 411,106 3 36	139,718 2.04 127 138,011 138 1,707	120,437 1.76 69 118,671 65 1,766	521,129 7.61 118 520,974 7 155	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
542,944 9.18 169 542,729 4 165 - - 1 50	354,649 5.99 23 353,300 - - - - 21 1,349	57,378 0.97 - - - 11 4,755 184 12,623	78,648 1.33 9 68,180 7 1,018 2 5,300 96 4,150	634,766 10.73 74 628,067 3 414 4 4,340 29 1,945	<u>USINES COMMERCIALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
457,505 9.05 171 457,495 1 10	279,172 5.52 41 279,136 3 36	47,066 0.93 73 45,777 117 1,289	60,330 1.20 49 59,752 60 577	513,464 10.16 103 513,309 7 155	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,742,735 77.79 184 1,741,660 4 185 - - 6 890	157,790 7.04 20 155,000 4 553 2 1,250 7 987	108,325 4.84 - 1 750 14 97,545 59 10,030	68,332 3.05 - 5 2,710 13 65,095 9 527	10,750 0.48 9 9,770 2 - - 4 925	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
1,380,734 76.83 191 1,380,699 1 35	131,970 7.34 33 131,970 - - - - - -	92,652 5.16 54 92,234 21 418	60,107 3.35 20 58,318 5 1,389	7,665 0.43 15 7,665 - -	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,837,267 28.12 349 1,837,267 - -	407,600 6.23 43 407,600 - -	- - - - - -	51,600 0.79 9 51,300 - -	514,879 7.87 83 514,809 - 70	<u>USINES HYDRAULIQUES</u> <u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
972 0.030 13 927 2 45	3,542 1.12 31 3,506 3 36	139,718 44.04 127 138,011 138 1,707	68,837 23.70 60 67,071 65 1,766	6,130 1.37 35 6,135 3 85	<u>USINES A COMBUSTIBLES</u> <u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.

X - Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.



TABLE 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1941

		Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>PRIMARY POWER</b>							
Water wheels and turbines	No.	8,157,585	9,214	172,874	159,778	4,079,402	2,285,679
	Total H.P.	841	7	57	16	273	353
	No.	7,784,400	392	102,990	105,760	4,076,552	2,284,369
	Total H.P.	135	7	20	2	28	55
Under 500 H.P.	No.	28,515	392	4,880	710	5,558	12,899
	Total H.P.	216	-	19	3	60	122
500 - 2,000 H.P.	No.	233,589	-	20,270	2,550	65,294	133,355
	Total H.P.	137	-	11	6	55	66
2,000 - 5,000 H.P.	No.	402,271	-	36,890	17,500	99,000	188,935
	Total H.P.	113	-	7	1	33	35
5,000 - 10,000 H.P.	No.	745,225	-	41,000	5,000	238,400	225,000
	Total H.P.	82	-	-	-	28	45
10,000 - 15,000 H.P.	No.	950,400	-	-	-	301,900	539,700
	Total H.P.	54	-	-	4	17	11
15,000 - 25,000 H.P.	No.	1,020,500	-	-	80,000	360,500	182,500
	Total H.P.	72	-	-	-	55	4
25,000 - 50,000 H.P.	No.	2,544,900	-	-	-	2,043,900	112,000
	Total H.P.	32	-	-	-	17	15
50,000 H.P. and up	No.	1,859,000	-	-	-	969,000	890,000
	Total H.P.	37	-	2	5	-	8
Steam reciprocating engines	No.	9,605	-	575	3,180	-	350
	Total H.P.	29	-	1	2	-	8
Under 500 H.P.	No.	3,145	-	75	280	-	350
	Total H.P.	8	-	1	3	-	-
500 H.P. and up	No.	6,460	-	500	2,900	-	-
	Total H.P.	71	4	14	6	1	-
Steam turbines	No.	323,631	6,680	68,436	30,080	150	-
	Total H.P.	5	-	-	-	1	-
Under 500 H.P.	No.	1,112	-	-	-	150	-
	Total H.P.	20	3	2	1	-	-
500 - 2,000 H.P.	No.	22,699	4,180	2,256	700	-	-
	Total H.P.	24	1	6	3	-	-
2,000 - 5,000 H.P.	No.	72,491	2,500	17,405	11,000	-	-
	Total H.P.	22	-	6	2	-	-
5,000 - 10,000 H.P. and up	No.	227,329	-	48,775	18,380	-	-
	Total H.P.	453	11	14	5	7	7
Gas and oil engines	No.	39,949	2,142	873	758	2,700	940
	Total H.P.						
<b>SECONDARY POWER</b>							
Dynamos, A.C. and D.C.	No.	1,384	20	87	32	280	364
	Total Kv.A.	6,851,785	6,945	144,409	118,862	3,550,904	1,838,239
Dynamos, A.C.	No.	1,165	20	86	30	279	362
	Total Kv.A.	6,847,166	6,945	144,369	118,012	3,550,884	1,838,194
Under 50 Kv.A.	No.	100	5	9	7	4	7
	Total Kv.A.	2,834	156	256	-	159	198
50 - 200 Kv.A.	No.	178	6	14	7	15	30
	Total Kv.A.	19,458	493	1,485	802	1,555	3,751
200 - 500 Kv.A.	No.	141	5	16	2	23	45
	Total Kv.A.	43,978	1,486	5,115	675	8,088	13,983
500 - 1,000 Kv.A.	No.	137	1	9	4	38	66
	Total Kv.A.	97,957	625	6,445	2,750	27,600	47,520
1,000 - 5,000 Kv.A.	No.	276	3	30	11	53	118
	Total Kv.A.	643,660	4,205	78,895	28,475	114,295	252,610
5,000 - 10,000 Kv.A.	No.	114	-	8	2	25	48
	Total Kv.A.	797,797	-	52,175	15,310	166,020	359,592
10,000 - 15,000 Kv.A.	No.	73	-	-	-	32	25
	Total Kv.A.	789,825	-	-	-	333,650	267,040
15,000 - 25,000 Kv.A.	No.	60	-	-	4	20	8
	Total Kv.A.	1,134,000	-	-	70,000	409,250	154,000
25,000 - 50,000 Kv.A.	No.	77	-	-	-	65	10
	Total Kv.A.	2,845,757	-	-	-	2,290,257	467,500
50,000 Kv.A. and up	No.	9	-	-	-	4	5
	Total Kv.A.	472,000	-	-	-	200,000	272,000
Dynamos, D.C.	No.	219	-	1	2	1	2
	Total Kw.	4,619	-	40	850	20	45
Under 50 Kw.	No.	214	-	1	-	1	2
	Total Kw.	2,499	-	40	-	20	45
50 - 200 Kw.	No.	1	-	-	-	-	-
	Total Kw.	120	-	-	-	-	-
200 - 500 Kw.	No.	2	-	-	1	-	-
	Total Kw.	600	-	-	200	-	-
500 Kw. and up	No.	2	-	-	1	-	-
	Total Kw.	1,400	-	-	650	-	-



Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal	
512,439	165,703	146,980	645,516	5,917,160	2,240,425	<u>FORCE MOTRICE PRIMAIRE</u> H.P.
43	-	9	83	558	283	<u>Turbines et roues hydrauliques</u> Nomb.
508,300	-	68,180	637,837	5,753,150	2,031,250	Total H.P.
-	-	1	22	93	42	Moins de 500 H.P. Nomb.
-	-	180	3,946	17,460	11,055	Total H.P.
-	-	-	12	117	99	500 - 2,000 H.P. Nomb.
-	-	-	14,120	121,344	112,245	Total H.P.
4	-	2	13	93	44	2,000 - 5,000 H.P. Nomb.
12,800	-	8,000	39,146	276,721	125,550	Total H.P.
21	-	4	12	73	40	5,000 - 10,000 H.P. Nomb.
130,000	-	24,000	86,825	500,025	245,200	Total H.P.
4	-	-	5	54	28	10,000 - 15,000 H.P. Nomb.
50,000	-	-	58,800	597,700	352,700	Total H.P.
8	-	2	12	43	11	15,000 - 25,000 H.P. Nomb.
147,500	-	36,000	214,000	838,000	182,500	Total H.P.
6	-	-	7	68	4	25,000 - 50,000 H.P. Nomb.
138,000	-	-	221,000	2,432,900	112,000	Total H.P.
-	-	-	-	17	15	50,000 et plus H.P. Nomb.
-	-	-	-	969,000	890,000	Total H.P.
4	1	12	5	21	16	<u>Machines à vapeur, à mouvement alternatif</u> Nomb.
553	750	3,728	469	5,352	4,253	Total H.P.
4	-	9	5	17	12	Moins et 500 H.P. Nomb.
553	-	1,418	469	1,952	1,193	Total H.P.
-	1	3	-	4	4	500 H.P. et plus Nomb.
-	750	2,310	-	3,400	3,060	Total H.P.
2	25	15	4	36	35	<u>Turbines à vapeur</u> Nomb.
1,250	142,300	70,395	4,340	137,780	185,851	Total H.P.
1	1	2	-	1	4	Moins et 500 H.P. Nomb.
400	267	295	-	150	962	Total H.P.
1	7	2	4	12	8	500 - 2,000 H.P. Nomb.
850	8,373	2,000	4,340	14,423	8,276	Total H.P.
-	8	6	-	13	11	2,000 - 5,000 H.P. Nomb.
-	24,286	17,300	-	36,166	36,325	Total H.P.
-	9	5	-	10	12	5,000 - 10,000 H.P. Nomb.
-	109,374	50,800	-	87,041	140,288	Total H.P.
28	243	105	33	339	114	<u>Moteurs à gaz et à pétrole</u> Nomb.
2,336	22,653	4,677	2,870	20,878	19,071	Total H.P.
77	265	134	125	939	445	<u>FORCE MOTRICE SECONDAIRE</u>
411,142	139,718	120,437	521,129	5,054,727	1,797,058	<u>Dynamos, C.A. &amp; C.D.</u> Nomb.
74	127	69	118	747	418	Total Kv.A.
411,106	138,011	118,671	520,974	5,051,750	1,795,416	<u>Dynamos, C.A.</u> Nomb.
15	27	19	14	73	27	Total Kv.A.
421	811	471	382	2,102	732	Moins et 50 Kv.A. Nomb.
11	43	23	29	119	59	50 - 200 Kv.A. Nomb.
1,084	4,820	2,537	2,931	12,318	7,140	Total Kv.A.
4	29	5	12	68	73	200 - 500 Kv.A. Nomb.
1,220	8,689	1,200	3,424	20,623	25,255	Total Kv.A.
1	6	3	9	77	60	500 - 1,000 Kv.A. Nomb.
781	3,886	2,088	6,262	54,170	43,787	Total Kv.A.
14	14	13	20	167	109	1,000 - 5,000 Kv.A. Nomb.
46,350	32,305	39,875	46,650	387,680	255,980	Total Kv.A.
11	4	2	14	69	45	5,000 - 10,000 Kv.A. Nomb.
70,750	25,000	11,250	97,700	481,625	316,172	Total Kv.A.
7	2	1	6	54	19	10,000 - 15,000 Kv.A. Nomb.
76,000	25,000	12,500	75,625	591,225	198,600	Total Kv.A.
11	2	3	12	49	11	15,000 - 25,000 Kv.A. Nomb.
214,500	37,500	48,750	200,000	923,750	210,250	Total Kv.A.
-	-	-	2	67	10	25,000 - 50,000

TABLE 14 - ELECTRIC ENERGY GENERATED, 1941

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>MUNICIPAL STATIONS</b>					
Kilowatt hours generated ..... (thousands)	24,784,691	11,869	480,177	553,074	17,741,218
Ratio of output to maximum capacity ..... p.c.	55.92	19.87	37.23	51.20	58.01
Average kilowatt hours per Kv.A. ....	4,812	1,637	3,261	4,485	4,965
<b>Hydraulic Stations</b>					
Kilowatt hours generated ..... (thousands)	8,180,136	-	232,867	19,200	96,446
Kv.A. capacity .....	1,656,894	-	66,658	10,263	24,194
Ratio of output to maximum capacity ..... p.c.	56.52	-	39.87	21.86	40.79
Average kilowatt hours per Kv.A. ....	4,937	-	3,493	1,871	3,577
<b>Fuel Stations</b>					
Kilowatt hours generated ..... (thousands)	342,779	1,004	3,746	27,349	3,210
Kv.A. capacity .....	187,426	1,700	5,300	14,418	2,100
Ratio of output to maximum capacity ..... p.c.	21.78	19.43	11.75	23.84	28.32
Average kilowatt hours per Kv.A. ....	1,833	1,731	1,821	4,373	3,421
<b>TOTAL HYDRAULIC STATIONS</b>					
Kilowatt hours generated ..... (thousands)	32,663,954	451	310,774	424,180	17,735,699
Kv.A. capacity .....	6,670,316	407	83,234	31,339	3,572,426
Ratio of output to maximum capacity ..... p.c.	56.71	12.65	42.83	34.33	58.10
Average kilowatt hours per Kv.A. ....	4,897	1,108	3,753	4,765	4,965
Kilowatt hours generated by water power ..... (thousands)	32,628,930	302	310,757	424,180	17,735,341
Kilowatt hours generated by auxiliary plants ..... (thousands)	35,024	29	17	-	358
<b>TOTAL FUEL STATIONS</b>					
Kilowatt hours generated ..... (thousands)	644,652	11,418	160,640	28,894	3,519
Kv.A. capacity .....	317,226	4,566	61,325	27,624	2,372
Ratio of output to maximum capacity ..... p.c.	23.20	19.79	29.90	40.87	26.56
Average kilowatt hours per Kv.A. ....	2,032	1,734	2,619	3,580	2,327
<b>TOTAL ELECTRIC ENERGY (THOUSANDS OF KILOWATT HOURS)</b>					
Total kilowatt hours generated .....	33,317,663	11,869	480,177	553,074	17,741,218
Kilowatt hours imported from the United States .....	670	-	-	6	226
Kilowatt hours imported from other provinces .....	-	-	-	6,721	155,165
Kilowatt hours exported to the United States .....	2,354,229	-	-	24,586	1,050
Kilowatt hours exported to other provinces .....	-	-	-	-	4,451,410
<b>KILOWATT HOURS FOR CONSUMPTION IN CANADA (THOUSANDS)</b>					
Total .....	30,964,104	11,869	480,177	515,215	13,444,151
Commercial light .....	2,582,405	3,463	48,357	31,234	342,626
Street lighting .....	1,309,254	2,494	31,436	23,201	325,020
Free service (other than street lighting) .....	658,448	844	19,780	14,782	143,878
Other .....	22,600,745	3,152	321,830	411,951	11,798,249
Street lighting .....	215,418	345	3,413	4,016	40,831
Free service (other than street lighting) .....	73,660	27	25	173	27,612
Other .....	3,324,174	1,524	53,830	24,692	1,128,005

\* Excludes exports to other provinces and/or to the United States.



TABEAU 14 - ENERGIE ELECTRIQUE GENEREE, 1941

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
9,655,697 28.92	1,926,696 5.78	196,541 0.59	519,743 0.96	2,472,848 7.42	<u>TOUTES USINES</u> Total Kw. heure générés ..... (milliers) Pourcentage du total pour le Canada ..... Kilowatt-heure générés par les usines .....
235 9,655,462 1,869,427 59.08 5,154	31 1,926,665 436,142 50.43 4,418	- 196,541 139,718 16.04 1,405	- 519,743 137,099 26.62 2,332	28 2,472,820 559,944 50.41 4,416	..... (milliers) ..... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
2,391,150 463,693 59.26 5,157	1,338,300 290,422 52.60 4,608	69,468 47,066 16.85 1,476	194,495 76,992 28.84 2,526	2,457,436 551,517 50.87 4,456	Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
2,590,588 463,538 59.27 5,157	1,537,217 289,350 52.75 4,621	- - - -	178,980 68,262 29.93 2,622	2,434,442 546,082 50.89 4,458	<u>USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) ..... Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
568 155 41.84 3,665	1,083 1,072 11.53 1,010	69,468 47,066 16.85 1,476	15,515 8,750 20.29 1,777	22,994 5,422 48.99 4,282	<u>USINES A CO</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
7,244,306 1,406,734 59.03 5,133	568,365 143,720 46.10 4,038	126,873 92,652 15.63 1,569	125,248 60,107 23.71 2,084	10,264 9,417 20.94 1,823	<u>USINES MUNICIPALES</u> TOTAL Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
7,243,250 1,404,917 60.52 5,156	583,329 143,250 46.48 4,072	- - - -	429 - - -	14,614 7,612 21.92 1,920	<u>USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
1,056 817 14.76 1,292	5,036 2,470 25.28 2,639	126,873 92,652 15.63 1,569	124,819 60,107 23.71 2,077	769 815 10.78 944	<u>USINES A CO</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
9,633,838 1,868,455 59.11 5,156	1,920,546 432,600 50.68 4,440	- - - -	179,409 68,262 30.00 2,628	2,449,057 553,694 50.49 4,424	<u>LES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) ..... Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. .... Kw.-heure générés par force motrice ..... Kw.-heure générés par les usines ..... (milliers)
9,633,493 345	1,920,072 474	- -	170,007 9,402	2,424,696 24,359	.....
1,624 972 19.08 1,671	6,119 3,542 19.73 1,728	196,541 139,718 16.04 1,405	140,334 68,837 26.27 2,039	23,763 6,250 43.40 3,802	<u>TOUTES USINES</u> Kilowatt-heure g ..... (milliers) ..... Proportion de production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
9,635,697 - 4,444,689 2,327,071 155,165	1,926,696 211 - 996 -	196,541 37 - - -	519,743 63 2,637 - -	2,472,848 - - 566 2,857	<u>CONSUMMATION D'ENERGIE ELECTRIQUE (EN MILLIERS DE KW.H.)</u> Total de kilowatt-heure générés ..... Kilowatt-heure importés des E ..... Kilowatt-heure importés d'au ..... Kilowatt-heure ex ..... ..... provinces .....
1,586,190 1,546,189 650,326 329,225 1,425,968 104,856 630 1,540,996	1,926,011 344,041 90,534 50,166 1,220,370 22,887 46 219,167	196,376 45,448 34,392 25,404 64,397 7,353 26 18,718	322,688 47,573 40,947 42,822 126,274 9,941 2,487 52,644	2,469,425 174,454 110,614 31,587 1,846,048 19,402 2,622 284,698	Service domestique ..... Eclairage commercial ..... Petite force motrice ..... Grosse force motrice ..... Eclairage des rues ..... Service gratuit (autre que l'éclairage des rues) .....

Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.



TABLE 15 - FUEL, 1941

	<u>Bituminous Coal</u> Charbon bitumineux			
	Canadian - Canadien		Imported - Importé	
	<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Quantity</u> Quantité	<u>Value</u> Valeur
CANADA .....	416,138	1,659,621	953	5,708
Prince Edward Island .....	8,696	55,044	-	-
Nova Scotia .....	183,074	774,392	-	-
New Brunswick .....	81,682	356,180	519	2,485
Quebec .....	-	-	434	3,223
Ontario .....	260	1,240	-	-
Manitoba .....	4,330	19,365	-	-
Saskatchewan .....	91,643	348,893	-	-
Alberta .....	26,425	26,885	-	-
British Columbia and Yukon .....	20,028	77,622	-	-
	<u>Fuel Oil and Diesel Oil</u> Mazout et huile diesel		<u>Wood</u> Bois	
	<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Quantity</u> Quantité	<u>Value</u> Valeur
CANADA .....	11,566,606	750,497	9,043	32,542
Prince Edward Island .....	248,436	26,981	200	900
Nova Scotia .....	116,455	11,846	-	-
New Brunswick .....	74,483	7,962	-	-
Quebec .....	426,533	39,616	150	450
Ontario .....	230,752	22,399	500	700
Manitoba .....	233,608	28,639	7,993	30,192
Saskatchewan .....	8,423,410	459,191	200	300
Alberta .....	404,202	54,917	-	-
British Columbia and Yukon .....	1,408,727	98,946	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu. feet.

TABLEAU 15 - COMBUSTIBLE, 1941

<u>Lignite Coal</u> Charbon Lignite		<u>Gasolene</u> Gasoline		<u>Kerosene</u> Kérosène	
Canadian - Canadien					
<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Quantity</u> Quantité	<u>Value</u> Valeur
209,800	384,364	18,074	3,879	8,111	1,482
-	-	215	47	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	150	40	-	-
-	-	-	-	-	-
-	-	635	205	160	24
64,594	116,578	9,920	1,997	3,130	496
145,206	267,786	6,821	1,388	4,812	957
-	-	333	202	9	5
<u>Manufactured Gas</u> Gaz fabriqué		<u>Natural Gas</u> Gaz naturel		<u>Other Fuel</u> Autre combustible	Total
<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Value</u> Valeur	<u>Value</u> Valeur
3,249,618	32,116	633,746	46,712	17,007	2,933,928
-	-	-	-	-	82,972
3,248,800	31,960	-	-	1,007	819,205
-	-	-	-	-	366,627
-	-	-	-	-	43,329
-	-	-	-	-	24,339
-	-	-	-	-	78,425
-	-	-	-	-	927,455
818	156	633,746	46,712	-	398,801
-	-	-	-	16,000	192,775

Note: Tonne = 2,000 livres.  
Gallon = Impérial.  
Corde = 128 pds. cu.





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CANADA

DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

TRANSPORTATION & PUBLIC UTILITIES BRANCH

CENSUS OF INDUSTRY

1942

Electric power station

CENTRAL ELECTRIC STATIONS  
IN CANADA

1942

(Prepared in collaboration with the Dominion  
Water and Power Bureau, Department of  
Mines and Resources)



OTTAWA  
1944

Price 25 cents



**DOMINION BUREAU OF STATISTICS**  
**TRANSPORTATION & PUBLIC UTILITIES BRANCH**  
**OTTAWA**

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Dominion Statistician, S. A. CUDMORE, M.A. (Oxon.), F.S.S., F.R.S.C.

Chief, Transportation and Public Utilities Branch, C.S. Wrong, B.Sc.

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CENTRAL ELECTRIC STATION INDUSTRY, 1942.

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (any of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 21 stations which were holding generating equipment classed as auxiliary plant equipment. Ten of them purchased all their electric energy and the remaining eleven generated only 10,608,000 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

The output of central electric stations has increased fairly continuously, the only check in the steady rise being in 1930-32, and again in 1938. In both instances the loss was more than regained in the following year. A feature of the increases in 1941 and 1942 and also, shown by the monthly reports for 1943, has been the transfer of secondary power to firm power plants. The firm power produced for use in Canada (including line losses) increased over the previous year by 7.5 p.c. in 1939, 16.1 p.c. in 1940 and 23.0 p.c. in 1941. It continued to increase in 1942 and 1943 but not at accelerating ratios, the percentage increases being 18.8 and 9.9 p.c. respectively. Thus the consumption in 1943 was almost double the 1938 consumption. Increased diversion of water at Niagara Falls under agreement with the United States Government was a factor in the increased production in 1941-43, and the majority of the large plants have been producing at their full capacity with the water available since the outbreak of war.



The production of electric energy for secondary use each month is shown below. Sales have been decreasing each year since war industries have been taxing the capacities of the plants to supply firm or primary power.

SECONDARY POWER FOR USE IN CANADA

(Thousands of Kilowatt Hours)

Month	1939	1940	1941	1942
January	607,070	571,502	254,150	129,985
February	605,257	546,239	221,700	126,124
March	619,756	484,192	235,823	148,811
April	527,079	443,481	335,398	189,265
May	578,058	588,189	388,909	263,430
June	526,652	575,863	205,865	239,342
July	488,165	565,869	229,452	199,275
August	505,652	414,632	164,271	184,787
September	590,900	326,025	270,359	181,952
October	684,433	297,519	335,863	136,424
November	685,441	309,146	407,939	158,724
December	615,246	300,526	331,706	155,729
TOTAL	7,033,709	5,423,183	3,381,435	2,113,848

Revised.

The pulp and paper industry was the largest consumer of electric energy in pre-war years, taking 32 p.c. of the total output of the central electric stations in 1938, but because of the restrictions on the use in electric boilers and also because of the expansion of the aluminium industry and other industries using enormous quantities of electricity, both the quantity and the percentage of the total output have been reduced since the outbreak of war.

The following table shows the consumption for the industries using large quantities and the disposal of central electric station output to other industries and other uses.

CONSUMPTION OF ELECTRIC ENERGY, 1942

(Thousands of Kilowatt Hours)

Industry	Power and Light	Other Purposes	Total Central Electric Station Power	P.C. of Total Production	Power Generated by the Industries
Pulp and Paper	4,963,381	1,706,658	6,670,039	17.8	2,025,724
Ferro-Alloys	18,138	1,098,115	1,116,253	3.0	-
Abrasives	14,930	754,876	769,806	2.1	-
Electro-Chemical	307,840	1,852,295	2,160,135	5.9	96,238
Metal Smelting and Refining	218,296	7,433,423	7,651,719	20.4	9,827
Steel Furnaces	81,374	215,562	296,936	0.8	-
<b>TOTAL</b>	<b>5,603,959</b>	<b>13,060,929</b>	<b>18,664,888</b>	<b>50.0</b>	<b>2,131,789</b>
Other Industries			8,446,954	22.7	
Domestic Service (Residential)			2,716,895	7.3	
Commercial Lighting			1,312,535	3.5	
Street Lighting			199,217	0.5	
Free Service			70,411	0.2	
Exports to U. S. A.			2,453,739	6.5	
Losses			3,490,540	9.3	
<b>TOTAL OUTPUT OF CENTRAL ELECTRIC STATIONS</b>			<b>37,355,179</b>	<b>100.0</b>	

Electricity is exported from Canada only by licence granted by the Electricity and Gas Section Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the calendar year ended Dec. 31, 1943, the export duty amounted to \$617,913. The rate is three one-hundredths of a cent per kilowatt hour on electric energy exported.

Below is a table showing the quantities of power produced for export for the calendar year 1942, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES

(Calendar Year 1942)

Company	Produced for Export Kw. h.	Exported Kw. h.
Hydro Electric Power Commission of Ontario .....	598,272,000	595,852,800
" " " " " " (surplus)- Niagara .....	741,502,800	729,150,111
" " " " " " - Cornwall .....	325,678,950	283,214,160
Canar Rapids Manufacturing and Power Co., Ltd. ....	685,711,566	653,517,236
Canadian Niagara Power Co., Ltd. ....	332,305,442	318,856,519
" " " " " (Surplus) .....	6,423,600	6,423,500
Ontario and Minnesota Power Co., Ltd. ....	35,282,000	35,282,000
Maine and New Brunswick Electric Power Co. ....	26,354,485	25,562,379
British Columbia Electric Railway Co., Ltd. ....	210,518	185,150
Northport Power and Light Co. ....	273,024	273,024
Southern Canada Power Company .....	1,262,694	1,262,694
Canadian Cottons, Ltd. ....	550,800	550,800
Northern British Columbia Power Co. ....	22,400	22,510
Tracer Companies, Ltd. ....	4,537,700	4,258,500
Detroit and Windsor Subway Company .....	299,800	299,800
Manitoba Power Commission .....	1,030,200	1,030,200
TOTAL .....	2,559,518,059	2,453,738,983

Of the total output of 37,355,179,000 kilowatt hours, 36,582,953,000 kilowatt hours or almost 98 p.c., was produced by water power, whereas only 714,811,000 kilowatt hours were produced by plants using only thermal engines and 57,415,000 kilowatt hours were produced by auxiliary equipment in hydraulic plants and in non-generating plants.



Total hydraulic installations in all industries in Canada at the close of 1942, including active and inactive plants, as compiled by the Dominion Water and Power Bureau was 9,225,838 horse power. The available and developed water power in each province is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province (1)	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow (2)	At Ordinary Six Months Flow (3)	1 9 4 3 (4)	1 9 4 2 (5)
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	133,384	143,717
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	5,847,322	4,839,543
Ontario .....	5,330,000	6,940,000	2,673,443	2,684,395
Manitoba .....	3,309,000	5,344,500	422,825	420,925
Saskatchewan .....	542,000	1,082,000	90,835	90,835
Alberta .....	390,000	1,049,500	94,997	94,997
British Columbia ...	7,023,000	10,998,000	796,024	792,563
Yukon and Northwest Territories	294,000	731,000	19,719	22,899
CANADA .....	25,439,400	39,511,700	10,214,513	9,225,838

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 51,350,000 horse power.

TABLE 1 - COMPARATIVE SUMMARY, 1933-1942

During the year there was an increase of 7 hydraulic plants and 2 fuel or thermal plants. Capital employed increased by \$106,431,347, which includes some expenditures on uncompleted plant. This is by far the largest increase in any year and brings the total increase between 1933 and 1942 to \$361,359,743 or 26 per cent. During this same period the output increased by 116 per cent and the revenue by \$86,381,987 or 74 per cent, whereas the generator capacity increased only 32 per cent.

TABLE 2 - DOMESTIC SERVICE, 1933-1942

This table shows the number of customers, the consumption, revenue, and averages computed from these for domestic service including farm service for 1942 back to 1933. In all provinces the number of customers increased during this period, the percentages ranging from 20 per cent in Manitoba to 56 per cent in New Brunswick. The rate of consumption also increased in all provinces, Nova Scotia leading here with an increase of 138 per cent. All of the provinces showed increased revenues from domestic service. The average annual consumption per customer varied widely, Manitoba leading with an average in 1942 of 4,062 kw. hrs. per customer and New Brunswick showing the smallest consumption at 636 kw. hrs. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario and British Columbia have been remarkably close together throughout these ten years despite the wide variations in unit costs. Domestic services are further discussed under Table 5 and at the end of this report.

TABLE 3 - POWER PLANTS

The generating stations are the individual power plants of the central electric stations. Each building housing power machinery is counted as a generating station. The commercial organizations are companies and individuals selling electric energy and the municipalities include urban and rural municipalities, provincial commissions, etc., selling electric energy. Those generating power operate from one to several power plants each, the largest system being the Ontario Hydro Electric Power Commission which operates 51 hydraulic plants and owns one steam auxiliary plant. The auxiliary plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations.



TABLE 4 - CAPITAL

The capital employed in the industry is reported under three heads, viz., generation, transmission and distribution, and general. "Generation" includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. "Transmission and distribution" includes all transmission and distribution towers, poles, wires, cables and conduits and right-of-way, receiving stations and substations and sites, switchboards and step-up transformers in these and in power houses, step-down transformers, meters, etc. "General" includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal year, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. The averages of total capital per unit of power are more indicative of different classes of stations and service given than costs of similar installations. The same also applies to generation capital per unit of power, only to a lesser degree.

TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service, which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick, and Alberta, which purchased power from other provinces, were lower than they should have been.

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the use of electric stoves, flat rate water heaters, the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills, aluminum plants, wholesale to Ontario, etc., showed a smaller proportion of revenue from domestic service than any other stations, although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services, for commercial light, etc., line losses were not included,



the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased or not affected by increases in rates elsewhere. The average revenue of 1.87 cents per kilowatt hour for all domestic service compares with an average of 3.67 cents or 3.57 cents including farm services in the United States. The average revenues per horse power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in tables 12 and 13 were increased one horse power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro Electric Power Commission's contracts with American companies which call for 86 kilowatt hours per week for each horse power purchased. It is quite probable this output is a little too high for all the power imported from Quebec, and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

The federal sales tax of 8 p.c. of domestic service bills has been treated by practically all central electric stations as a tax on the consumer and was not included in either revenues or expenses. The Act placed the tax on the producer or importer, but a subsequent Order in Council allowed the producer or importer to increase the charge to the consumer by the amount of the tax irrespective of any agreements, charters, etc. Also provincial and municipal taxes on domestic bills, where imposed, have not been included as either revenue or expenses.

#### TABLE 6 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations. As explained above, the sales taxes on domestic bills have not been included in the taxes shown in this table.

#### TABLE 7 - EMPLOYEES

There was little change in the number of employees during the year. Quebec stations showed a small increase and Ontario stations a small decrease with minor changes in the other provinces. The net result was a decrease of 16 employees. The following table analyses the hours of

work of wage earners in the industry. Over half of the employees worked a 48 hour week and 84.5 per cent worked 48 hours or less per week. Although there was a large decrease in the number of employees working 48 hours per week, the average hours for all employees showed very little change during the year.

NUMBER OF WAGE EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS PER WEEK WERE:

Hours per Wk.	40 or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 & over	Total
E.I.	-	-	-	-	-	29	-	-	-	1	5	35
S.	180	12	134	83	220	42	29	31	11	107	79	928
B.	29	8	2	19	138	7	7	47	-	24	5	286
Quebec	278	5	18	-	2,887	90	33	458	3	159	53	3,984
Ontario	497	34	559	235	3,273	212	28	161	34	182	74	5,289
Manitoba	12	1	137	9	441	15	7	-	-	-	3	625
Sask.	42	3	62	43	207	2	13	32	-	3	23	430
Alberta	86	3	199	4	151	6	-	-	-	-	-	449
B.C. & Yukon	245	1	151	5	795	5	5	1	-	5	11	1,224
CANADA	1,569	67	1,262	398	8,112	408	122	730	48	481	253	13,250
C. of Total	10.3	.5	9.5	3.0	61.2	3.1	.9	5.5	.4	3.7	1.9	100.0

TABLE 8 - CUSTOMERS

As explained under table 4, stations are asked for a division of customers into seven classes, but due to the inability of many stations to make complete segregations between domestic service and farm customers these two have been combined. Also some stations group all their rural customers and classify them as farm. The total of these farm customers reported in 1942 was 2,930 or 6.3 per cent of the total of farm and domestic customers. Ontario stations reported 1,076, Quebec stations reported 28,419, and stations in the other provinces reported 18,435 farm customers.

The average number of domestic customers per 100 population has increased from 8.86 in 1920 to 15.48 in 1942, or by 75 per cent during this period.



TABLE 9 - POLE LINE MILEAGE

Transmission and distribution lines are combined in this table and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileages.

TABLES 10-11-12-13 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 46,807,000 kilowatt hours being generated during the year by this auxiliary equipment.

TABLE 14 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating



stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 Kw.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. In some cases this changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly especially up to 1937. Since the outbreak of the war the supply of surplus power has been greatly reduced and with war industries working twenty four hours per day the supply of off-peak power has also been reduced so that sales of secondary power have shown a steady decrease.

#### TABLE 15 - FUEL

Fuel used is almost entirely local coal, oil and gas, and Saskatchewan and Nova Scotia are the only provinces using any substantial quantities of fuel to develop electric energy. Nova Scotia has several large hydro-electric developments, but Saskatchewan has only one which is on the Manitoba boundary and is included with Manitoba stations in these statistics. "Other fuel" is composed of steam purchased by a Nova Scotia station and sawdust and "hog" fuel in British Columbia.

#### DOMESTIC SERVICE

In the following table data on domestics are brought together and analysed. It might be expected the provinces with relatively high percentages of rural populations, Prince Edward Island, Saskatchewan and Alberta, show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of

the use. Manitoba's low unit cost and high average consumption are influenced by flat rate water heaters in Winnipeg which induce high consumption per customer. Also where hydro-electric power is plentiful the rates are generally low and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and large consumption by pulp and paper, aluminum and other electric metallurgical plants.

Domestic customers in Ontario used almost 60 p.c. of the total power used by all domestic customers in Canada but the population of this province was almost a third of the total for the Dominion.

DOMESTIC SERVICE, 1942

	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	Per cent of total Provincial Consumption	Per cent of Dominion Dom. Service Consumption
			\$	¢	Kw.Hr.	Kw.Hr.		
P. E. Island	5,606	5.84	35.04	5.49	639	37	27.3	.1
Nova Scotia	72,592	12.37	29.85	4.18	715	88	10.0	1.9
New Brunswick	54,529	11.73	28.67	4.51	636	75	7.4	1.3
Quebec	488,014	14.40	22.10	2.93	754	109	2.3	13.6
Ontario	787,721	20.59	28.95	1.40	2,061	425	12.6	59.8
Manitoba	87,615	11.87	40.75	1.00	4,062	482	17.1	13.1
Saskatchewan	54,132	5.97	40.16	4.64	866	52	22.1	1.7
Alberta	74,814	9.29	31.99	4.87	656	61	11.3	1.8
B.C. & Yukon	178,685	21.22	28.26	2.76	1,024	217	7.0	6.7
CANADA	1,803,708	15.48	28.11	1.87	1,506	233	7.8	100.00

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## TABLE 1 - COMPARATIVE SUMMARY, 1935-1942

BY CLASS OF STATION	1942	1941	1940	1939	1938
<b>PLANT</b>					
.....	618	607	602	611	589
.....	520	515	515	515	515
Fuel .....	296	294	289	298	278
.....	426	424	421	427	406
Municipal .....	183	185	181	184	185
<b>REVENUE (1)</b>					
Total .....	1,747,891,798	1,641,460,451	1,615,438,140	1,584,805,211	1,545,416,592
.....	1,127,978,352	1,054,714,025	1,049,508,804	1,014,704,665	1,002,891,485
Municipal .....	619,913,466	588,746,428	565,931,256	548,893,546	542,525,107
Generating .....	1,559,495,388	1,459,900,540	1,440,026,870	1,536,858,921	1,577,120,289
.....	188,596,410	181,559,911	175,411,270	167,784,290	168,298,505
<b>EXPENSES (2)</b>					
Total .....	205,855,365	186,018,040	166,228,775	151,890,969	144,551,627
Commercial .....	124,611,713	111,851,778	99,887,052	92,555,049	87,697,078
.....	79,223,652	74,166,282	66,341,721	59,545,920	56,654,549
.....	175,916,640	157,283,409	159,675,592	127,483,222	120,784,959
Non-generating .....	29,918,725	28,734,651	26,555,581	24,597,747	25,546,888
<b>NET REVENUE</b>					
Total .....	132,581,418	117,758,977	105,044,158	91,982,372	87,384,540
.....	71,133,382	60,581,821	51,990,160	42,471,554	41,087,998
Municipal .....	61,448,036	57,197,556	55,055,998	49,510,658	46,296,542
.....	80,171,836	89,148,513	80,752,761	51,570,157	48,948,422
Non-generating .....	52,408,832	48,610,464	44,291,597	40,412,235	38,417,918
<b>PER MILEAGE</b>					
.....	77,909	77,253	75,050	72,152	66,977
.....	51,847	51,442	50,933	50,288	29,555
.....	46,062	45,811	44,117	41,844	37,622
Generating .....	61,927	61,485	59,676	57,094	52,573
.....	15,952	15,758	15,374	15,048	14,604
<b>DOMESTIC SERVICE (3)</b>					
.....	2,125,804	2,081,270	2,006,508	1,941,663	1,875,621
Commercial light .....	1,802,708	1,755,917	1,686,388	1,625,672	1,565,594
.....	264,705	288,977	265,175	282,590	259,893
Power (small) .....	44,813	44,071	43,158	45,896	41,999
Power (large) .....	9,673	9,954	9,490	9,267	10,152
Street lighting .....	2,404	2,371	2,517	2,238	2,183
Commercial stations .....	985,659	954,906	926,093	889,418	859,508
Municipal stations .....	1,140,245	1,126,564	1,088,415	1,052,245	1,014,115
Generating stations .....	1,103,539	1,079,235	1,052,453	998,067	954,797
Non-generating stations .....	2,321,765	1,002,037	982,075	945,596	918,624
<b>DOMESTIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	37,355,179	35,517,663	50,109,285	28,558,050	28,154,160
Commercial .....	28,177,587	24,793,715	22,287,270	21,290,950	19,488,525
Municipal .....	9,177,792	8,525,948	7,822,015	7,047,100	6,665,635
..... the United States (4) ... (thousands) Kw.h.	2,453,759	2,354,229	2,152,129	1,908,756	1,822,103
Imports from the United States (4) (thousands) Kw.h.	594	670	655	666	624
<b>EQUIPMENT IN GENERATING STATIONS (MAIN PLANT ONLY)</b>					
Primary Power .....	8,615,696	8,157,585	7,955,887	7,807,122	7,476,976
in commercial stations .....	6,269,586	5,917,160	5,708,664	5,585,652	5,500,185
in generating stations .....	2,344,510	2,240,425	2,247,223	2,221,470	2,176,795
..... Kw.A.	7,256,927	6,851,785	6,891,211	6,455,418	6,327,668
Total in commercial stations .....	5,366,769	5,054,727	4,906,268	4,654,745	4,588,275
Total in municipal stations .....	1,890,158	1,797,058	1,784,943	1,780,671	1,741,595
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	194,966	194,651	194,914	194,159	195,628
Secondary power .....	166,236	166,021	166,567	165,785	166,680

- (1) Cost of power interchanged between stations excluded from revenue of purchasing stations. (See page 7).  
 Includes wages, cost of power, fuel and taxes, but not other expenses.  
 (3) Farm service is included with domestic service.  
 (4) By central electric stations only. (See page 2).

TABLEAU 1 - SOMMAIRE COMPARATIF, 1933-1942

1937	1936	1935	1934	1933	DONNEES PRINCIPALES PAR CLASSES D'USINES
568 314 254 589 179	561 312 249 590 171	566 316 250 397 169	573 314 259 402 171	575 314 261 405 172	<u>USINES ELECTRIQUES</u> <u>Total</u> Hydrauliques A combustible Commerciales Municipales
1,497,330,231 979,950,159 517,380,072 1,337,399,695 159,930,536	1,483,116,649 957,466,865 525,649,784 1,326,820,103 156,296,546	1,459,821,168 962,263,142 497,558,026 1,307,710,173 152,110,995	1,430,852,166 956,382,436 474,469,730 1,281,048,308 149,803,863	1,386,532,055 913,946,953 472,585,102 1,240,169,785 146,362,270	<u>CAPITAL</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
143,548,643 85,283,008 58,263,635 120,465,135 23,081,508	135,865,173 78,882,504 56,982,669 112,776,015 23,089,158	127,177,954 79,341,554 47,836,400 105,638,584 21,539,370	124,463,613 77,509,001 47,154,612 104,089,041 20,374,572	117,522,081 73,082,078 44,450,003 98,735,084 18,796,997	<u>RECETTES (1)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
84,185,082 41,132,931 45,052,151 46,114,640 38,070,442	77,939,050 36,530,527 41,408,523 41,390,019 36,549,031	79,625,134 33,856,054 45,789,080 45,904,771 35,720,363	75,948,821 31,778,237 44,170,584 40,911,118 35,037,703	73,051,651 29,162,633 43,882,018 38,608,455 34,443,196	<u>DEPENSES (2)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
63,035 28,332 34,703 48,866 14,169	59,436 27,271 32,165 45,099 14,337	57,602 26,520 31,082 43,372 14,230	56,214 26,476 29,738 42,537 13,677	56,570 25,129 31,441 43,625 12,945	<u>LIGNES SUR POUTEAUX</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
1,805,995 1,500,128 252,305 41,415 10,066 2,081	1,740,793 1,443,059 245,144 40,742 9,840 2,008	1,694,705 1,401,983 240,468 40,292 9,989 1,971	1,660,079 1,379,153 229,187 41,429 8,325 1,985	1,666,882 1,371,806 244,283 40,641 8,160 1,992	<u>ABONNES</u> <u>Total</u> Service domestique (3) Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues
833,711 972,284 916,648 889,347	802,676 938,117 866,407 874,586	779,400 915,303 837,278 857,425	760,462 899,617 819,419 840,660	776,581 890,301 843,324 823,556	Usines commerciales Usines municipales Usines génératrices Usines non-génératrices
27,687,645 20,315,627 7,372,018	25,402,282 18,515,225 6,887,057	23,283,033 17,787,949 5,515,084	21,197,124 16,060,883 5,136,241	17,338,990 15,665,974 3,673,016	<u>ENERGIE ELECTRIQUE GENEREE</u> <u>Total Kw. heures générés (milliers)</u> Commerciale Municipale
1,843,227 1,517	1,575,980 765	1,359,021 856	1,243,079 542	983,561 608	Exportations d'électricité aux Etats-Unis (4) .....(milliers) Kw.h. Importations d'électricité des Etats-Unis (4) .....(milliers) Kw.h.
7,342,085 5,205,529 2,158,556 6,206,465 4,496,443 1,710,022	7,119,272 5,012,968 2,106,304 6,025,999 4,340,889 1,685,130	7,104,142 5,138,200 1,965,942 5,893,984 4,317,823 1,576,161	6,854,161 4,961,639 1,892,522 5,899,955 4,179,536 1,520,419	6,616,006 4,707,096 1,908,910 5,491,685 3,956,475 1,535,210	<u>MACHINERIE DANS LES USINES GENERATRICES</u> (Usines principales seulement) <u>Total force motrice primaire</u> ..... H.P. <u>Total dans les usines commerciales</u> ..... H.P. <u>Total dans les usines municipales</u> ..... H.P. <u>Total force motrice secondaire</u> .....Kv.A. <u>Total dans les usines commerciales</u> .....Kv.A. <u>Total dans les usines municipales</u> .....Kv.A.
197,350 167,839	200,621 172,327	206,831 176,890	207,451 177,244	193,569 164,732	<u>OUTILLAGE D'USINES AUXILIAIRES</u> Force motrice primaire ..... H.P. Force motrice secondaire .....Kv.A.

- (1) Le coût de l'énergie échangée entre stations est exclu du revenu des stations en faisant l'achat. (Voir p. 7.)  
 (2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.  
 (3) L'éclairage des fermes est inclus dans l'éclairage domestique.  
 (4) Par usines centrales électriques seulement. (Voir p. 2).



TABLE 2 - DOMESTIC SERVICE, 1933 - 1942

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	¢
CANADA .....						
1933	1,371,806	1,650,595	55,953,823	1,203	26.21	2.18
1934	1,379,153	1,717,090	56,507,822	1,245	26.47	2.15
1935	1,401,965	1,769,848	56,773,643	1,262	26.23	2.08
1936	1,443,059	1,887,116	58,399,102	1,308	26.61	2.03
1937	1,500,128	2,007,433	59,253,133	1,338	26.17	1.96
1938	1,559,394	2,172,500	41,302,107	1,393	26.49	1.90
1939	1,623,672	2,310,891	43,793,482	1,423	26.97	1.90
1940	1,686,388	2,456,572	46,444,357	1,445	27.54	1.91
1941	1,755,917	2,582,405	48,683,162	1,471	27.73	1.89
1942	1,803,708	2,716,895	50,706,757	1,506	28.11	1.87
Change (Changement)	1933-1942					
Amount (Volume)	431,902	1,066,500	14,752,934	303	1.90	- .51
Per cent (p.c.)	31.48	64.62	41.03	25.19	7.25	- 14.22
PRINCE EDWARD ISLAND ..						
1933	5,970	1,584	135,231	399	34.06	8.54
1934	4,097	1,605	133,843	392	32.67	8.34
1935	4,199	1,722	134,740	410	32.08	7.82
1936	4,379	2,035	145,442	465	33.21	7.15
1937	4,545	2,232	152,660	491	33.59	6.84
1938	4,799	2,579	150,994	537	31.46	5.85
1939	5,067	2,908	163,226	574	32.21	5.61
1940	5,227	3,076	172,643	588	33.03	5.61
1941	5,531	3,483	183,090	630	33.10	5.26
1942	5,606	3,580	196,446	639	35.04	5.49
Change (Changement)	1933-1942					
Amount (Volume)	1,636	1,996	61,215	240	.98	- 3.05
Per cent (p.c.)	41.21	126.01	45.27	60.15	2.88	- 35.71
NOVA SCOTIA .....						
1933	47,124	21,800	1,199,951	463	25.46	5.50
1934	48,852	23,637	1,257,599	484	25.74	5.32
1935	52,500	25,937	1,350,632	496	25.44	5.13
1936	54,763	29,212	1,457,054	533	26.61	4.99
1937	58,165	31,692	1,535,298	545	26.40	4.84
1938	58,556	35,307	1,595,086	603	27.24	4.52
1939	62,034	39,084	1,709,507	630	27.56	4.37
1940	65,790	43,277	1,877,812	658	28.54	4.54
1941	69,997	48,357	2,065,057	691	29.50	4.27
1942	72,592	51,877	2,166,648	715	29.85	4.18
Change (Changement)	1933-1942					
Amount (Volume)	25,468	30,077	966,697	252	4.39	- 1.52
Per cent (p.c.)	54.04	137.97	80.56	54.43	17.24	- 24.00
NEW BRUNSWICK .....						
1933	34,959	18,740	954,423	536	27.30	5.09
1934	35,364	19,607	962,212	554	27.21	4.91
1935	36,602	20,597	994,895	563	27.18	4.85
1936	38,660	22,049	1,068,038	570	27.63	4.84
1937	41,604	23,488	1,117,953	565	28.87	4.76
1938	43,556	25,367	1,232,937	582	28.51	4.86
1939	46,485	26,989	1,307,772	581	28.13	4.85
1940	50,681	29,588	1,413,237	580	27.88	4.81
1941	52,831	31,234	1,435,015	591	27.16	4.59
1942	54,529	34,696	1,563,354	636	28.67	4.51
Change (Changement)	1933-1942					
Amount (Volume)	19,570	15,956	608,911	100	1.37	- .58
Per cent (p.c.)	55.98	85.14	63.80	18.66	5.02	- 11.59
QUEBEC .....						
1933	385,175	240,110	7,795,948	623	20.24	3.25
1934	378,705	237,522	7,776,391	627	20.53	3.28
1935	378,388	226,285	7,297,458	598	19.29	3.22
1936	390,711	241,799	7,723,973	619	19.77	3.19
1937	407,155	265,405	8,108,946	652	19.92	3.06
1938	421,178	287,107	8,669,034	682	20.58	3.02
1939	434,825	311,420	9,167,384	716	21.08	2.94
1940	451,791	324,032	9,634,598	717	21.32	2.97
1941	473,547	342,627	10,100,300	724	21.53	2.95
1942	488,014	368,173	10,785,887	754	22.10	2.93
Change (Changement)	1933-1942					
Amount (Volume)	102,839	128,063	2,999,939	131	1.86	- .52
Per cent (p.c.)	26.70	53.34	38.35	21.03	9.19	- 9.85



TABLEAU 2 - SERVICE DOMESTIQUE, 1933 - 1942

Year Année	Number of Customers Nombre d'usagers	Kilowatt Hours Consumed Kilowatt heures consommées	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager	Average Annual Bill Compte moyen de l'année	Revenue per Kilowatt Hour Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	\$
<b>ONTARIO</b> .....						
1933	598,347	917,649	16,262,707	1,534	27.18	1.77
1934	605,885	980,978	16,811,849	1,619	27.75	1.71
1935	618,111	1,023,929	17,171,424	1,657	27.78	1.68
1936	634,052	1,098,598	17,716,636	1,733	27.94	1.61
1937	660,262	1,174,358	17,718,464	1,779	28.84	1.51
1938	691,496	1,285,568	18,456,575	1,859	26.69	1.44
1939	719,871	1,374,325	19,657,658	1,909	27.31	1.43
1940	745,396	1,459,233	20,928,097	1,958	28.08	1.43
1941	772,153	1,546,139	21,980,031	2,002	28.47	1.42
1942	787,721	1,623,780	22,807,897	2,061	28.95	1.40
Change (Changement) Amount (Volume) Per cent (p.c.)	189,274 31.65	706,131 76.95	6,545,190 40.25	527 34.35	1.77 6.51	- .37 - 20.90
<b>MANITOBA</b> .....						
1933	72,935	275,048	2,743,877	3,771	37.62	1.00
1934	73,545	282,067	2,782,475	3,855	37.83	0.99
1935	74,538	289,314	2,814,963	3,881	39.11	1.01
1936	75,858	296,110	3,029,140	3,903	39.93	1.02
1937	76,516	303,271	3,122,397	3,963	40.81	1.03
1938	77,762	311,795	3,223,605	4,010	41.45	1.03
1939	81,091	320,827	3,311,662	3,956	40.84	1.04
1940	83,404	330,269	3,423,312	3,960	41.04	1.01
1941	85,106	343,041	3,472,277	4,031	40.80	1.00
1942	87,615	355,928	3,570,492	4,062	40.75	1.00
Change (Changement) Amount (Volume) Per cent (p.c.)	14,680 20.13	80,880 29.41	826,615 30.13	291 7.72	3.13 8.32	- -
<b>SASKATCHEWAN</b> .....						
1933	44,319	36,317	1,775,697	819	40.07	4.89
1934	44,493	34,906	1,741,371	785	39.14	4.99
1935	45,451	35,402	1,795,683	779	39.51	5.07
1936	46,478	36,044	1,851,794	776	39.84	5.14
1937	46,650	37,234	1,852,503	798	39.73	4.98
1938	48,060	39,077	1,903,731	813	39.61	4.87
1939	49,980	41,198	2,004,433	824	40.10	4.87
1940	51,425	43,406	2,093,205	844	40.70	4.82
1941	52,695	45,448	2,173,255	862	41.24	4.78
1942	54,132	46,858	2,173,896	866	40.16	4.64
Change (Changement) Amount (Volume) Per cent (p.c.)	9,813 22.14	10,541 29.02	398,199 22.42	47 5.74	.09 .22	- .25 - 5.11
<b>ALBERTA</b> .....						
1933	57,350	29,668	1,728,351	517	30.15	5.83
1934	58,375	30,378	1,764,295	520	30.22	5.81
1935	58,127	31,636	1,714,128	544	29.49	5.42
1936	59,600	33,481	1,789,422	562	30.02	5.34
1937	61,121	35,339	1,865,520	578	30.52	5.28
1938	63,030	38,089	1,983,226	604	31.46	5.21
1939	68,287	42,210	2,145,093	618	31.42	5.08
1940	69,597	45,110	2,275,091	650	32.78	5.04
1941	72,422	47,572	2,593,189	857	33.05	5.03
1942	74,814	49,089	2,393,073	656	31.39	4.87
Change (Changement) Amount (Volume) Per cent (p.c.)	17,484 30.50	19,421 65.46	664,722 38.46	139 26.89	1.84 6.10	- .96 - 16.47
<b>BRITISH COLUMBIA)..... and YUKON</b> .....						
1933	127,647	109,479	3,557,638	858	26.50	3.07
1934	129,837	108,590	3,277,787	821	25.25	3.08
1935	134,267	115,028	3,419,710	857	25.47	2.97
1936	138,558	127,788	3,617,603	922	26.11	2.83
1937	144,130	134,414	3,779,592	933	26.22	2.81
1938	150,955	147,613	4,086,919	978	27.07	2.77
1939	156,052	151,950	4,326,747	974	27.73	2.85
1940	163,277	158,781	4,626,562	972	28.34	2.91
1941	171,635	174,454	4,880,948	1,016	28.44	2.90
1942	178,685	182,914	5,049,084	1,024	28.26	2.76
Change (Changement) Amount (Volume) Per cent (p.c.)	51,038 39.98	73,435 67.08	1,691,446 50.38	166 19.35	1.96 7.45	- .31 - 10.10

TABLE 3 - ELECTRIC POWER PLANTS, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Total number of generating stations .....	616	9	46	14	99
Per cent of total for Canada .....	100.00	1.46	7.47	2.27	16.07
<u>COMMERCIAL</u> .....	428	7	20	8	82
Hydraulic .....	211	5	12	5	80
Fuel .....	217	2	8	3	2
<u>MUNICIPAL</u> .....	188	2	26	6	17
Hydraulic .....	109	-	19	3	15
Fuel .....	79	2	7	3	2
With water wheels and turbines .....	320	5	31	8	95
With steam engines only .....	26	-	1	1	-
With steam turbines only .....	26	1	7	1	1
With gas or oil engines only .....	239	3	7	3	3
With both steam engines and turbines .....	3	-	-	1	-
With both steam and gas or oil engines .....	2	-	-	-	-
With alternating current dynamos only .....	478	9	46	12	98
With direct current dynamos only .....	135	-	-	1	1
With both alternating and direct current dynamos ...	3	-	-	1	-
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 401	8	20	15	68
Number generating power .....	296	6	12	7	41
Number buying power for redistribution .....	104	2	8	8	27
<u>MUNICIPALITIES</u> .....	X 447	2	23	9	30
Number generating power .....	75	2	8	1	11
Number buying power for redistribution .....	370	-	15	8	19
<u>AUXILIARY PLANTS</u> .....	65	2	9	2	9
To hydraulic stations .....	44	2	3	-	8
To non-generating stations .....	21	-	6	2	1

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.

TABLEAU 3 - USINES GENERATRICES, 1942

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
137	25	142	74	70	<u>Nombre d'usines génératrices</u>
22.24	4.06	23.05	12.01	11.37	Pourcentage du total pour le Canada
63	15	107	64	62	<u>COMMERCIALES</u>
58	5	-	5	41	Hydrauliques
5	10	107	59	21	A combustible
74	10	35	10	8	<u>MUNICIPALES</u>
65	2	-	-	5	Hydrauliques
9	8	35	10	5	A combustible
123	7	-	5	46	Avec roues et turbines hydrauliques
8	3	1	7	5	Avec machines à vapeur seulement
-	1	7	5	3	Avec turbines à vapeur seulement
5	13	133	56	16	Avec moteurs à gaz ou à pétrole seulement
-	-	1	1	-	Avec machines et turbines à vapeur à la fois
1	1	-	-	-	Avec machines à vapeur à gaz et à pétrole
135	22	50	39	67	Avec dynamos à courant alternatif seulement
2	2	92	34	3	Avec dynamos à courant direct seulement
-	1	-	1	-	Avec dynamos à courant alternatif et direct
62	17	90	63	57	<u>USINES COMMERCIALES</u>
39	11	88	52	40	Nombre d'usines génératrices
23	6	2	11	17	Nombre d'usines achetant de l'électricité pour la revendre
311	11	27	15	17	<u>MUNICIPALITES</u>
14	6	19	8	6	Nombre d'usines génératrices
297	5	8	7	11	Nombre d'usines achetant de l'électricité pour la revendre
8	6	-	8	21	<u>USINES AUXILIAIRES</u>
5	2	-	8	16	Aux usines hydrauliques
3	4	-	-	5	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.



TABLE 4 - CAPITAL, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<b>TOTAL CAPITAL</b> .....	1,747,891,798	1,511,688	41,554,451	55,704,848	795,204,189
Per cent of total for Canada .....	100.00	0.08	2.38	2.04	45.49
Generation .....	1,036,338,201	767,130	24,135,155	23,417,809	575,155,377
Transmission and distribution .....	585,473,183	610,297	14,676,657	11,013,363	167,994,228
General .....	126,080,414	134,261	2,742,639	1,273,676	52,056,584
<b>TOTAL CAPITAL IN COMMERCIAL STATIONS</b> .....	1,127,978,332	1,252,572	20,742,586	23,200,872	776,117,480
Generation .....	776,241,166	600,368	9,484,336	18,795,030	562,027,055
Transmission and distribution .....	272,179,035	547,962	8,853,149	5,709,274	162,805,166
General .....	79,558,131	104,242	2,405,101	702,568	51,285,259
Non-generating stations .....	45,927,943	7,000	8,614,992	1,774,707	658,646
Generating stations .....	1,082,050,389	1,245,572	12,127,594	21,432,165	775,458,834
Hydraulic stations .....	1,056,001,781	139,180	6,435,144	18,100,342	775,370,584
Fuel stations .....	26,048,628	1,108,392	5,692,450	3,331,823	88,450
<b>TOTAL CAPITAL IN MUNICIPAL STATIONS</b> .....	619,913,466	259,116	20,811,865	12,497,976	19,088,709
Generation .....	260,097,035	166,762	14,650,819	4,622,779	13,128,322
Transmission and distribution .....	313,294,148	62,335	5,823,508	7,304,089	5,189,062
General .....	46,522,283	30,019	337,538	571,108	771,325
Non-generating stations .....	142,468,467	-	1,812,548	1,477,776	2,735,950
Generating stations .....	477,444,999	259,116	18,999,317	11,020,200	16,350,759
Hydraulic stations .....	448,082,369	-	17,499,516	2,853,485	15,939,888
Fuel stations .....	29,362,630	259,116	1,499,801	8,166,715	410,871
<b>TOTAL CAPITAL IN NON-GENERATING STATIONS</b> .....	188,396,410	7,000	10,427,540	3,252,483	3,394,596
Generation .....	3,780,855	-	2,009,092	293,644	695,782
Transmission and distribution .....	152,373,438	7,000	6,579,781	2,390,840	2,478,180
General .....	32,242,117	-	1,838,687	562,999	220,634
<b>TOTAL CAPITAL IN GENERATING STATIONS</b> .....	1,559,495,388	1,504,688	31,126,911	32,452,365	791,809,595
Generation .....	1,032,557,346	767,130	22,126,063	23,119,165	574,457,595
Transmission and distribution .....	433,099,745	603,297	8,096,896	8,622,523	165,516,048
General .....	93,838,297	134,261	905,952	710,677	51,835,950
Hydraulic stations .....	1,504,084,130	139,180	23,934,660	20,953,827	791,310,272
Fuel stations .....	55,411,258	1,365,508	7,192,251	11,498,538	499,321
<b>TOTAL CAPITAL</b> .....					
Average per H.P. of primary power .....	203	164	235	253	179
Average per H.P. including auxiliary equipment .....	198	161	219	248	177
Average per Kv.A. of dynamo capacity .....	241	218	281	298	205
Average per Kv.A. including auxiliary equipment .....	235	216	262	293	203
<b>GENERATION</b> .....					
Average cost per H.P. (including auxiliary equipment) .....					
In all generating stations .....	118	82	125	164	128
In hydraulic stations .....	120	142	164	177	129
In fuel stations .....	74	78	65	122	87

X - Capital invested in one hydraulic station in Saskatchewan included in Manitoba.

TABLEAU 4 - CAPITAL, 1942

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
610,815,745	X 78,092,027	X 27,385,170	33,894,380	123,729,500	<u>TOTAL CAPITAL</u>
34.95	4.47	1.57	1.94	7.08	Pourcentage du total pour le Canada
280,612,729	41,813,921	13,403,575	15,804,770	61,229,735	Génération
284,511,947	50,800,065	12,278,112	16,280,784	47,307,730	Transmission et distribution
45,691,069	5,478,041	1,703,483	1,808,826	15,191,835	Généralités
107,358,569	38,365,443	12,853,996	26,498,782	121,582,032	<u>TOTAL CAPITAL DANS LES USINES COMMERCIALES</u>
77,670,550	27,908,570	6,037,470	13,179,576	60,538,411	Génération
22,900,935	9,645,930	5,696,198	12,053,566	45,968,855	Transmission et distribution
6,787,084	812,943	1,120,328	1,265,840	15,074,766	Généralités
2,888,680	1,551,876	1,778,538	122,884	28,530,620	Usines non-génératrices
104,469,889	36,813,587	11,075,458	26,375,898	93,051,412	Usines génératrices
104,443,315	36,429,558	-	22,825,910	92,257,928	Usines hydrauliques
26,574	384,009	11,075,458	3,549,988	793,484	Usines à combustible
503,457,176	39,726,584	14,531,174	7,395,598	2,147,268	<u>TOTAL CAPITAL DANS LES USINES MUNICIPALES</u>
202,942,179	13,905,551	7,366,105	2,625,394	691,324	Génération
261,611,012	21,156,135	6,581,914	4,227,218	1,338,875	Transmission et distribution
38,903,985	4,665,098	583,155	542,986	117,069	Généralités
123,328,831	8,306,289	1,493,019	2,219,078	1,094,996	Usines non-génératrices
380,123,345	31,420,315	13,038,155	5,176,520	1,052,272	Usines génératrices
379,950,415	30,901,999	-	-	957,066	Usines hydrauliques
197,930	518,316	13,038,155	5,176,520	95,206	Usines à combustible
126,217,511	9,358,145	3,271,537	2,341,962	29,625,616	<u>TOTAL CAPITAL DANS LES USINES NON-GENERATRICES</u>
165,248	392,216	-	-	219,873	Génération
103,705,308	7,709,177	2,966,470	2,116,455	24,420,047	Transmission et distribution
22,346,755	1,756,752	305,087	225,507	4,985,696	Généralités
484,598,234	68,233,882	24,113,613	31,552,418	94,103,634	<u>TOTAL CAPITAL DANS LES USINES GENERATRICES</u>
280,447,481	41,421,705	13,403,575	15,804,770	61,009,862	Génération
180,806,439	23,090,888	9,511,642	14,164,329	22,887,683	Transmission et distribution
23,544,314	3,721,289	1,398,396	1,583,519	10,206,139	Généralités
484,373,730	67,331,557	-	22,825,910	93,214,994	Usines hydrauliques
224,504	902,325	24,113,613	8,726,508	888,690	Usines à combustible
261	152	163	199	191	<u>TOTAL CAPITAL</u>
256	144	163	179	177	Moyenne par H.P. de la machinerie d'énergie primaire
324	190	193	242	256	Moyenne par H.P. y compris machinerie auxiliaire
322	177	193	216	219	Moyenne par Kv.A. de la capacité des dynamos
					Moyenne par Kv.A. y compris machinerie auxiliaire
					<u>GENERATION</u>
118	77	80	84	88	Moyenne par H.P. y compris machinerie auxiliaire
118	76	-	109	88	Dans les usines génératrices
123	124	80	48	58	Dans les usines hydrauliques
					Dans les usines à combustible

X - Capital engagé dans une usine hydraulique de la Saskatchewan inclus sous Manitoba.



TABLE 5 - REVENUE, 1942 (1)

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	203,835,365	461,129	7,528,652	4,745,871	78,725,594
For domestic service .....	50,706,757	196,446	2,166,648	1,565,554	10,785,887
For commercial light .....	29,421,913	118,144	1,426,858	772,692	8,744,252
For power (small) .....	11,757,158	56,985	624,923	288,804	2,542,082
For power (large) .....	106,932,805	90,179	5,107,223	1,979,690	55,565,758
For street lighting .....	5,016,752	19,575	205,000	159,551	1,287,417
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	124,611,713	336,424	5,181,482	2,616,280	76,582,946
Non-generating .....	8,856,911	1,437	2,172,563	480,570	150,927
Generating .....	115,754,802	354,987	3,008,919	2,135,710	76,252,019
Hydraulic .....	109,476,480	27,293	1,052,546	1,511,712	76,197,448
Fuel .....	6,278,322	507,694	1,956,375	625,998	34,571
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	79,223,652	124,705	2,547,150	2,127,591	2,542,448
Non-generating .....	21,061,814	-	552,195	476,116	627,270
Generating .....	58,161,838	124,705	1,994,955	1,651,475	1,715,178
Hydraulic .....	50,546,517	-	1,651,764	85,048	1,622,598
Fuel .....	7,615,321	124,705	345,191	1,566,427	92,580
Revenue of non-generating stations .....	29,918,725	1,437	2,524,758	956,686	778,197
Revenue of generating stations .....	175,916,640	459,892	5,005,874	3,787,185	77,947,197
Revenue of hydraulic stations .....	159,824,997	27,293	2,704,310	1,596,760	77,820,046
Revenue of fuel stations .....	14,091,645	452,599	2,299,564	2,190,425	127,151
Average revenue per H.P. of primary power .....	23.66	50.05	42.58	35.27	17.64
Average revenue per H.P. in main and auxiliary plants .....	25.14	49.17	39.84	32.64	17.49
Average revenue per Kv.A. of dynamo capacity .....	28.09	66.40	50.91	39.21	20.22
Average revenue per Kv.A. in main and auxiliary plants .....	27.46	65.94	47.40	38.55	20.04
Average revenue per kilowatt hour consumed .....	.58	5.52	1.46	1.01	.50
Average revenue per domestic service customer .....	28.11	35.04	29.85	28.67	22.10
Average revenue per commercial light customer .....	115.15	95.43	151.35	111.84	116.07
Average revenue per small power customer .....	262.56	295.88	261.47	279.58	255.27
Average revenue per large power customer .....	11,054.77	10,019.89	16,099.60	8,837.90	40,981.51
Average revenue per kilowatt hour - domestic and farm service .....	1.87	5.49	4.18	4.51	2.95
Average revenue per kilowatt hour - commercial light .....	2.24	4.88	4.01	5.15	2.70

/ - Affected by power purchased from other province.

X - Adjusted for power purchased from Quebec plants.

(1) - Gross revenue less cost of power interchanged between stations.



TABLEAU 5 - RECETTES, 1942 (1)

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
85,536,715	9,931,783	6,041,038	7,293,056	18,260,860	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
22,807,897	3,570,492	2,173,896	2,393,073	5,049,084	Pour éclairage domestique
9,289,802	1,854,506	1,791,972	1,874,856	3,568,851	Pour éclairage commercial
5,171,217	401,396	788,135	1,086,812	816,804	Pour force motrice (petite)
46,148,022	3,882,363	996,716	1,653,224	8,396,745	Pour force motrice (grosse)
2,119,777	243,026	290,319	285,091	429,376	Pour éclairage des rues
16,014,500	5,119,789	2,297,170	3,564,565	17,555,498	<u>RECETTES DES USINES COMMERCIALES</u>
3,718,812	204,764	174,970	90,868	4,965,716	Non-génératrices
12,295,688	4,915,025	2,122,200	3,473,697	12,589,782	Génératrices
12,275,544	4,829,031	-	2,642,908	12,095,225	Hydrauliques
20,144	85,994	2,122,200	830,789	294,559	A combustible
69,522,215	4,611,994	3,743,868	3,728,491	905,362	<u>RECETTES DES USINES MUNICIPALES</u>
15,776,688	1,195,593	769,847	1,355,657	553,050	Non-génératrices
53,745,527	3,616,401	2,974,021	2,372,834	352,312	Génératrices
53,675,469	3,412,940	-	-	284,268	Hydrauliques
70,058	203,461	2,974,021	2,372,834	68,044	A combustible
19,495,500	1,400,357	944,817	1,446,525	5,518,766	Recettes des usines non-génératrices
66,041,215	8,831,426	5,096,221	5,846,531	12,742,094	Recettes des usines génératrices
65,951,013	8,241,971	-	2,642,908	12,379,491	Recettes des usines hydrauliques
90,202	289,455	5,096,221	3,203,623	362,603	Recettes des usines à combustible
x 24.74	19.37	35.90	42.90	28.15	Moyenne de recettes par H.P. de machinerie primaire
x 24.44	18.26	35.90	38.60	26.12	Moyenne de recettes par H.P. de machinerie principale et
x 51.46	24.15	42.48	51.99	34.78	Moyenne de recettes par Kv.A. de capacité de dynamos
x 51.08	22.57	42.48	46.47	32.29	Moyenne de recettes par Kv.A. de capacité des dynamos,
.55	.48	2.86	1.68	.70	usines principales et auxiliaires
28.95	40.75	40.16	51.99	28.26	Moyenne de recettes par Kw. heure ..... (cents)
101.77	102.43	115.47	109.89	124.84	Moyenne de recettes par abonnés d'éclairage domestique
368.50	118.90	280.77	193.52	176.49	Moyenne de recettes par abonnés d'éclairage commercial
14,452.87	1,132.21	7,494.11	4,362.07	11,019.35	Moyenne de recettes par abonnés pour petite force motrice
					Moyenne de recettes par abonnés pour grosse force motrice
1.40	1.00	4.64	4.87	2.76	Moyenne de recettes par Kw. heure-service domestique
					et de ferme ..... (cents)
1.46	1.96	4.50	4.30	3.24	Moyenne de recettes par Kw. heure - service commercial
					(cents)

/ - Affecté par énergie achetée d'une autre province.

X - Adjusté pour achats de courant des usines du Québec.

(1) - Revenu brut moins le coût de l'énergie échangée entre stations.

TABLE 6 - EXPENSES, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<b>EXPENSES</b> .....	132,581,418	258,521	6,664,748	2,218,280	57,711,502
Per cent of total for Canada .....	100.00	0.18	5.05	1.67	28.44
Salaries and wages .....	34,285,870	81,749	1,464,016	595,945	8,809,407
Fuel .....	3,490,125	97,586	938,989	450,890	45,968
Taxes (x) .....	29,302,912	55,470	1,725,685	241,527	18,701,242
Cost of power .....	65,502,511	1,716	2,540,056	929,918	10,054,685
<b>TOTAL FOR COMMERCIAL STATIONS</b> .....	71,135,382	199,118	5,395,612	1,229,594	58,829,875
Salaries and wages .....	16,810,351	70,296	1,129,224	516,121	8,517,759
Fuel .....	1,973,988	71,656	829,586	180,855	6,557
Taxes .....	28,304,830	55,470	1,696,703	240,499	18,681,877
Cost of power .....	24,044,233	1,716	1,740,519	491,921	9,625,720
Non-generating stations .....	14,997,592	1,744	3,315,706	712,224	84,549
Generating stations .....	56,135,990	197,374	2,080,106	517,170	56,745,524
Hydraulic stations .....	52,241,389	13,560	490,709	185,085	56,729,692
Fuel stations .....	3,894,601	184,014	1,589,397	334,085	15,832
<b>TOTAL FOR MUNICIPAL STATIONS</b> .....	61,448,036	87,403	1,268,934	988,886	861,429
Salaries and wages .....	17,475,539	11,453	334,792	279,824	591,668
Fuel .....	1,516,137	25,950	107,623	270,037	39,451
Taxes .....	998,082	-	26,982	1,028	19,565
Cost of power .....	41,458,278	-	799,537	437,997	450,985
Non-generating stations .....	37,412,440	-	722,584	516,451	461,665
Generating stations .....	24,035,596	37,403	546,350	472,455	419,748
Hydraulic stations .....	21,012,500	-	190,960	17,259	570,471
Fuel stations .....	3,023,296	37,403	355,390	455,196	49,275
<b>TOTAL EXPENSES FOR NON-GENERATING STATIONS</b> .....	52,409,832	1,744	4,038,290	1,228,655	546,032
Salaries and wages .....	9,148,521	-	722,471	234,285	161,289
Fuel .....	67,866	-	66,755	-	698
Taxes .....	3,899,010	28	1,511,923	111,553	2,455
Cost of power .....	39,294,435	1,716	1,937,141	882,817	581,612
<b>TOTAL EXPENSES FOR GENERATING STATIONS</b> .....	80,171,586	234,777	2,626,456	989,625	57,165,270
Salaries and wages .....	25,137,549	81,749	741,545	561,660	8,748,158
Fuel .....	3,422,259	97,586	870,234	450,890	45,272
Taxes .....	25,403,902	55,442	411,762	129,974	18,698,787
Cost of power .....	26,208,076	-	602,815	47,101	9,875,075
Hydraulic stations .....	73,253,689	13,560	681,669	200,544	37,100,163
Fuel stations .....	6,917,897	221,417	1,944,787	789,281	65,107

(x) Sales tax not included .....

/ Includes only the four items listed.



TABLEAU 6 - DEPENSES, 1942

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
62,836,869	3,056,587	3,219,874	3,493,319	13,143,920	<u>TOTAL DES DEPENSES</u>
47.39	2.51	2.45	2.64	9.91	Pourcentage du total pour le Canada
15,586,593	2,132,033	1,058,569	1,271,463	3,186,095	Salaires et gages
21,276	99,743	1,051,250	514,557	271,866	Combustible
2,870,667	214,441	342,614	544,977	4,608,289	Taxes (x)
44,358,333	610,370	767,441	1,162,322	5,077,670	Achat d'énergie électrique
10,662,651	1,354,129	1,255,051	1,521,490	12,685,864	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,831,193	838,764	437,130	640,957	3,028,907	Salaires et gages
7,203	33,801	584,749	203,065	256,778	Combustible
2,179,114	124,330	289,716	428,832	4,608,289	Taxes
6,645,141	557,234	143,456	248,636	4,791,890	Achat d'énergie électrique
3,488,615	386,983	118,092	39,667	6,850,012	Usines non-génératrices
7,174,036	967,146	1,136,959	1,481,823	5,835,852	Usines génératrices
7,164,195	908,461	-	1,065,296	5,686,591	Usines hydrauliques
9,841	58,685	1,136,959	416,527	149,261	Usines à combustible
52,174,218	1,702,458	1,964,823	1,971,829	458,056	<u>TOTAL POUR LES USINES MUNICIPALES</u>
13,755,400	1,293,269	621,439	630,506	157,188	Salaires et gages
14,073	65,942	666,501	511,492	15,088	Combustible
691,553	90,111	52,898	116,145	-	Taxes
37,713,192	253,136	623,985	913,686	285,780	Achat d'énergie électrique
32,900,227	476,539	726,204	1,235,155	373,617	Usines non-génératrices
19,273,991	1,225,919	1,238,619	736,674	84,439	Usines génératrices
19,248,370	1,126,108	-	-	59,132	Usines hydrauliques
25,621	99,811	1,236,619	736,674	25,307	Usines à combustible
36,388,842	863,522	844,296	1,274,822	7,223,629	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
5,998,508	239,522	117,426	244,224	1,431,016	Salaires et gages
258	36	-	-	121	Combustible
415,921	13,818	58,362	93,987	1,890,963	Taxes
29,974,155	610,346	668,508	936,611	3,901,529	Achat d'énergie électrique
26,448,027	2,193,085	2,375,578	2,218,497	5,920,291	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
9,588,085	1,892,711	941,145	1,027,239	1,755,079	Salaires et gages
21,018	99,707	1,051,250	514,557	271,745	Combustible
2,454,746	200,623	284,252	450,990	2,717,326	Taxes
14,584,178	24	98,933	225,711	1,178,141	Achat d'énergie électrique
28,412,565	2,034,569	-	1,085,296	5,745,723	Usines hydrauliques
35,482	158,496	2,375,578	1,153,201	174,568	Usines à combustible

2,052,962      297,021      208,054      198,680      553,478 ..... Taxe des ventes non comprises. (x)

/ Ne comprend que les quatre item énumérés.



TABLE 7 - EMPLOYEES, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	19,764	65	1,064	543	5,398
Per cent of total for Canada .....	100.00	0.33	5.38	2.75	27.51
Officers, clerks, other salaried employees, etc. ..	8,199	52	400	278	1,824
Employees on wages .....	11,565	33	664	265	3,574
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	10,067	53	761	238	5,109
Officers, clerks, other salaried employees, etc. ..	3,537	21	228	99	1,676
Employees on wages .....	6,530	32	533	139	3,433
Non-generating .....	1,318	-	389	90	21
Generating .....	8,749	53	372	148	5,088
Hydraulic .....	7,957	11	225	72	5,080
Fuel .....	792	42	147	76	8
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	9,697	12	303	305	289
Officers, clerks, other salaried employees, etc. ..	4,662	11	172	179	148
Employees on wages .....	5,035	1	131	126	141
Non-generating .....	4,210	-	82	85	98
Generating .....	5,487	12	221	222	191
Hydraulic .....	4,612	-	141	14	180
Fuel .....	875	12	80	208	11
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	5,528	-	471	173	119
Officers, clerks, other salaried employees, etc. ..	3,067	-	222	110	64
Employees on wages .....	2,461	-	249	63	55
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	14,236	65	593	370	5,279
Officers, clerks, other salaried employees, etc. ..	5,132	32	178	168	1,760
Employees on wages .....	9,104	33	415	202	3,519
Hydraulic .....	12,569	11	366	86	5,260
Fuel .....	1,667	54	227	284	19

TABLEAU 7 - EMPLOYEES, 1942

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
8,180	1,355	668	724	1,767	<u>TOTAL DU PERSONNEL OCCUPE</u>
41.39	6.86	3.38	3.66	8.94	Pourcentage du total pour le Canada
3,422	870	278	332	763	Administrateurs, directeurs, commis et tous employés des bureaux
4,758	485	390	392	1,004	Ouvriers et journaliers
1,037	519	322	364	1,664	<u>PERSONNEL DES USINES COMMERCIALES</u>
265	211	139	179	719	Administrateurs, directeurs, commis et tous employés des bureaux
772	308	183	185	945	Ouvriers et journaliers
45	11	12	7	743	Non-génératrices.
992	508	310	357	921	Génératrices
987	489	-	222	871	Hydrauliques
5	19	310	135	50	Combustible
7,143	836	346	360	103	<u>PERSONNEL DES USINES MUNICIPALES</u>
3,157	659	139	153	44	Administrateurs, directeurs, commis et tous employés des bureaux
3,986	177	207	207	59	Ouvriers et journaliers
3,484	204	54	146	59	Non-génératrices
3,659	632	292	214	44	Génératrices
3,648	591	-	-	38	Hydrauliques
11	41	292	214	6	Combustible
3,529	215	66	153	802	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,928	186	38	95	444	Administrateurs, directeurs, commis et tous employés des bureaux
1,601	49	28	58	358	Ouvriers et journaliers
4,651	1,140	602	571	965	<u>PERSONNEL DES USINES GENERATRICES</u>
1,494	704	240	237	519	Administrateurs, directeurs, commis et tous employés des bureaux
3,157	436	362	334	646	Ouvriers et journaliers
4,635	1,080	-	222	909	Hydrauliques
16	60	602	349	56	Combustible

TABLE 8 - NUMBER OF CUSTOMERS, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>NUMBER OF CUSTOMERS</b> .....	2,125,304	6,991	86,112	62,739	576,502
Per cent of total for Canada .....	100.00	-0.33	4.05	2.95	27.12
Domestic service .....	1,805,708	5,806	72,592	54,529	488,014
Commercial light .....	264,706	1,258	10,885	6,909	75,555
Power (small) .....	44,813	125	2,390	1,033	10,805
Power (large) .....	9,673	9	193	224	1,551
Street lighting .....	2,404	13	74	44	799
<b>HYDRO-ELECTRIC STATIONS</b> .....	985,059	5,645	58,554	26,218	531,720
Domestic service .....	818,157	4,552	49,275	21,732	448,545
Commercial light .....	139,959	996	7,494	3,721	71,218
Power (small) .....	21,384	76	1,637	666	9,940
Power (large) .....	4,157	8	106	78	1,252
Street lighting .....	1,422	11	42	21	787
Generating .....	219,305	103	44,922	16,004	4,519
Generating .....	765,754	5,540	13,632	10,214	527,201
Hydraulic .....	705,596	706	9,374	2,009	526,718
Thermal .....	60,158	4,834	4,258	8,205	483
<b>MUNICIPAL STATIONS</b> .....	1,140,245	1,548	27,558	36,521	44,582
Domestic service .....	985,571	1,054	23,317	32,797	39,471
Commercial light .....	124,747	242	3,569	3,188	4,115
Power (small) .....	23,429	49	753	367	865
Power (large) .....	5,516	1	87	146	99
Street lighting .....	982	2	32	23	52
Generating .....	802,460	-	15,445	15,356	21,536
Generating .....	337,785	1,348	12,113	21,165	23,246
Hydraulic .....	240,306	-	6,351	1,684	22,146
Thermal .....	97,479	1,348	5,762	19,461	1,100
<b>NON-GENERATING STATIONS</b> .....	1,021,765	103	60,367	31,560	25,855
Domestic service .....	869,302	74	50,557	26,866	22,625
Commercial light .....	126,953	28	7,837	3,863	2,635
Power (small) .....	21,466	-	1,839	465	526
Power (large) .....	3,337	-	98	144	23
Street lighting .....	707	1	36	22	50
<b>WATER-POWER STATIONS</b> .....	1,103,539	6,988	25,745	31,379	550,447
Hydraulic stations .....	945,902	706	15,725	3,693	548,864
Domestic service .....	810,505	571	13,484	3,065	464,169
Commercial light .....	110,454	131	1,825	522	72,567
Power (small) .....	17,877	-	329	76	10,257
Power (large) .....	5,613	1	60	25	1,525
Street lighting .....	1,253	3	27	5	746
<b>WIND STATIONS</b> .....	157,837	6,182	10,020	27,686	1,583
Domestic service .....	123,901	4,961	8,551	24,598	1,222
Commercial .....	27,299	1,079	1,201	2,524	535
Power (small) .....	5,470	125	222	492	22
Power (large) .....	523	8	35	55	3
Street lighting .....	444	9	11	17	5

Average number of domestic service customers

per 100 of population .....

15.48

5.84

12.37

11.75

14.40



TABLEAU 8 - NOMBRE D'USAGERS, 1942

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
396,843	112,515	72,829	98,077	212,796	<u>NOMBRE D'USAGERS</u>
42.20	5.30	3.43	4.61	10.01	Pourcentage du total pour le Canada
787,721	87,615	54,132	74,314	178,685	Service domestique
91,296	17,909	15,519	17,061	28,588	Eclairage commercial
14,033	3,376	2,807	5,616	4,628	Force motrice (petite)
3,193	3,429	133	379	762	Force motrice (grosse)
610	186	338	207	133	Eclairage des rues
76,788	34,254	27,922	32,344	191,616	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
65,544	25,237	20,177	21,947	161,150	Service domestique
9,723	7,011	6,402	7,788	25,606	Eclairage commercial
1,061	436	1,116	2,334	4,098	Force motrice (petite)
364	1,550	48	85	666	Force motrice (grosse)
76	20	179	190	116	Eclairage des rues
5,519	8,138	2,938	2,400	134,762	Non-génératrices
71,269	26,116	24,984	29,344	56,854	Génératrices
70,630	24,520	-	17,099	54,540	Hydrauliques
639	1,596	24,984	12,845	2,314	Combustible
820,055	78,261	45,007	65,733	21,180	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
722,177	62,578	35,955	52,867	17,555	Service domestique
81,563	10,898	9,117	9,273	2,982	Eclairage commercial
12,952	2,840	1,691	3,282	530	Force motrice (petite)
2,829	1,879	85	294	96	Force motrice (grosse)
534	168	159	17	17	Eclairage des rues
665,813	22,199	15,835	30,478	15,998	Non-génératrices
154,242	56,062	29,172	35,255	5,182	Génératrices
152,997	52,761	-	-	4,367	Hydrauliques
1,245	3,301	29,172	35,255	815	Combustible
671,332	30,337	18,773	32,878	150,760	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
577,125	23,968	14,039	26,689	127,361	Service domestique
79,638	5,064	3,673	4,332	19,885	Eclairage commercial
12,004	880	957	1,780	3,015	Force motrice (petite)
2,245	266	47	62	452	Force motrice (grosse)
320	159	57	15	47	Eclairage des rues
225,511	82,178	54,156	65,199	62,036	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
223,627	77,281	-	17,099	58,907	Usines hydrauliques
203,939	59,853	-	11,217	49,107	Service domestique
11,500	11,907	-	4,253	7,949	Eclairage commercial
1,957	2,302	-	1,474	1,482	Force motrice (petite)
945	3,109	-	49	299	Force motrice (grosse)
286	10	-	106	70	Eclairage des rues
1,884	4,897	54,156	48,100	3,129	Usines à combustible
1,657	3,694	40,093	36,908	2,217	Service domestique
148	938	11,846	8,478	754	Eclairage commercial
72	194	1,850	2,362	151	Force motrice (petite)
5	54	86	268	11	Force motrice (grosse)
4	17	281	86	16	Eclairage des rues

20.59

11.87

5.97

9.29

21.22

Moyenne de consommateurs d'éclairage électrique  
par 100 habitants

TABLE 9 - POLE LINE MILEAGE, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	77,839	500	4,235	5,254	14,591
Per cent of total for Canada .....	100.00	0.59	5.43	4.18	18.72
Miles of steel towers .....	5,389	-	21	245	1,558
Miles of steel poles .....	300	-	1	-	235
Miles of wooden poles .....	69,491	297	4,200	5,008	12,175
Miles of concrete poles .....	554	-	-	1	-
Miles of underground and submarine cables .....	2,175	5	15	2	827
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	51,847	276	2,099	707	14,099
Non-generating .....	5,155	10	912	249	521
Generating .....	26,692	266	1,187	458	15,688
Hydraulic .....	23,889	53	972	256	15,676
Fuel .....	2,803	213	215	202	12
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	46,062	24	2,136	2,547	582
Non-generating .....	10,827	-	424	179	171
Generating .....	35,235	24	1,712	2,368	411
Hydraulic .....	29,843	-	1,253	29	390
Fuel .....	5,392	24	459	2,359	21
<u>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</u> .....	15,982	10	1,536	428	492
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	61,927	290	2,899	2,826	14,099
Hydraulic .....	53,732	53	2,225	285	14,066
Fuel .....	8,195	237	674	2,541	53

TABLE 10 - AUXILIARY PLANT EQUIPMENT, 1942

<u>TOTAL PRIMARY POWER</u> .....	H.P.	194,966	165	13,083	2,725	57,511
Per cent of total for Canada .....		100.00	0.08	6.71	1.40	19.14
Steam reciprocating engines .....	No.	28	1	8	2	1
Total capacity .....	H.P.	11,676	75	3,463	800	60
Steam turbines .....	No.	44	-	3	5	8
Total capacity .....	H.P.	172,104	-	7,590	1,925	56,224
Gas and oil engines .....	No.	52	2	8	-	5
Total capacity .....	H.P.	11,186	90	2,230	-	1,027
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	166,236	48	10,964	2,035	53,694
<u>COMMERCIAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	130,962	165	12,420	2,725	25,675
Steam reciprocating engines .....	No.	19	1	6	2	1
Total capacity .....	H.P.	7,378	75	3,040	800	60
Steam turbines .....	No.	35	-	3	5	6
Total capacity .....	H.P.	115,240	-	7,590	1,925	25,500
Gas and oil engines .....	No.	38	2	5	-	5
Total capacity .....	H.P.	8,344	90	1,990	-	115
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	110,118	48	10,428	2,035	25,125
<u>MUNICIPAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	64,004	-	663	-	11,636
Steam reciprocating engines .....	No.	9	-	2	-	-
Total capacity .....	H.P.	4,298	-	423	-	-
Steam turbines .....	No.	9	-	-	-	2
Total capacity .....	H.P.	56,864	-	-	-	10,724
Gas and oil engines .....	No.	14	-	3	-	2
Total capacity .....	H.P.	2,842	-	240	-	912
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	56,118	-	536	-	10,769



TABLEAU 9 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1942

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
37,054	4,355	4,082	4,262	5,796	<u>LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX</u>
47.55	5.56	5.24	5.47	7.46	Pourcentage du total pour tout le Canada
2,957	743	-	31	36	Milles de pylones d'acier
66	-	-	-	-	Milles de poteaux d'acier
32,387	3,557	4,057	4,158	5,654	Milles de poteaux de bois
553	-	-	-	-	Milles de poteaux de ciment
1,091	35	25	73	106	Milles de câbles souterrains et sous-marins
2,745	1,434	1,872	3,380	5,325	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
218	215	746	48	2,436	Non-génératrices
2,527	1,219	1,126	3,332	2,889	Génératrices
2,515	1,142	-	2,461	2,814	Hydrauliques
12	77	1,126	871	75	A combustible
34,309	2,901	2,210	882	571	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
7,113	1,996	207	422	315	Non-génératrices
27,196	905	2,003	460	156	Génératrices
27,168	865	-	-	138	Hydrauliques
28	40	2,003	460	18	A combustible
7,331	2,211	953	470	2,751	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
29,723	2,124	3,129	3,792	3,045	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GENERATRICES</u>
29,683	2,007	-	2,461	2,952	Hydrauliques
40	117	3,129	1,331	93	A combustible

TABLEAU 10 - OUTILLAGE AUXILIAIRE, 1942

41,175	51,090	-	18,963	50,454	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
21.12	15.94	-	9.73	25.88	Pourcentage du total pour tout le Canada
4	1	-	7	4	Machines à vapeur, à mouvement alternatif .....Nomb.
1,600	1,750	-	2,753	1,175	Capacité totale .....H.P.
4	7	-	4	15	Turbines à vapeur .....Nomb.
58,000	28,490	-	15,000	45,075	Capacité totale .....H.P.
4	7	-	7	19	Moteurs à gaz et à pétrole .....Nomb.
1,575	850	-	1,210	4,204	Capacité totale .....H.P.
35,497	28,711	-	16,662	40,425	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....Kv.A.
10,075	12,000	-	18,963	48,939	<u>USINES COMMERCIALES</u>
-	-	-	7	2	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
-	-	-	2,753	650	Machines à vapeur, à mouvement alternatif .....Nomb.
2	3	-	4	14	Capacité totale .....H.P.
8,500	12,000	-	15,000	44,925	Turbines à vapeur .....Nomb.
4	-	-	7	17	Capacité totale .....H.P.
1,575	-	-	1,210	3,364	Moteurs à gaz et à pétrole .....Nomb.
7,282	11,250	-	16,662	39,288	Capacité totale .....H.P.
31,100	19,090	-	-	1,515	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....Kv.A.
4	1	-	-	2	<u>USINES MUNICIPALES</u>
1,600	1,750	-	-	525	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
2	4	-	-	1	Machines à vapeur, à mouvement alternatif .....Nomb.
29,500	16,490	-	-	150	Capacité totale .....H.P.
-	7	-	-	2	Turbines à vapeur .....Nomb.
-	850	-	-	840	Capacité totale .....H.P.
26,215	17,461	-	-	1,157	Moteurs à gaz et à pétrole .....Nomb.
					Capacité totale .....H.P.
					<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....Kv.A.



TABLE 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> .....H.P.	8,808,662	9,379	189,907	143,975	4,481,275
Per cent of total for Canada .....	100.00	0.11	2.16	1.63	50.87
Water wheels and turbines .....No.	854	7	57	17	282
Total capacity .....H.P.	8,234,285	392	107,015	107,010	4,441,112
Steam reciprocating engines .....No.	62	1	9	7	1
Total capacity .....H.P.	20,621	75	3,963	3,980	60
Steam turbines .....No.	117	4	17	9	9
Total capacity .....H.P.	500,745	6,630	75,828	52,005	56,574
Gas and oil engines .....No.	525	13	22	6	12
Total capacity .....H.P.	53,011	2,232	3,103	980	3,727
<b>TOTAL DYNAMO CAPACITY</b> .....Kv.A.	7,422,163	6,993	155,834	121,897	3,810,278
Per cent of total for Canada .....	100.00	0.09	2.14	1.64	52.88
Dynamos, A.C. ....No.	1,304	21	108	56	298
Total capacity .....Kv.A.	7,417,196	6,993	158,534	121,047	3,810,258
Dynamos, D.C. ....No.	221	-	1	2	1
Total capacity .....Kw.	5,967	-	300	850	20
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> .....H.P.	6,400,348	7,314	102,089	114,355	4,388,407
Water wheels and turbines .....No.	566	7	19	11	255
Total capacity .....H.P.	6,095,440	392	26,170	94,150	4,362,402
Steam reciprocating engines .....No.	38	1	7	7	1
Total capacity .....H.P.	12,575	75	3,540	3,980	60
Steam turbines .....No.	73	4	14	6	7
Total capacity .....H.P.	258,030	6,680	70,245	15,625	25,650
Gas and oil engines .....No.	586	5	7	2	5
Total capacity .....H.P.	30,303	167	2,134	600	295
<b>TOTAL DYNAMO CAPACITY</b> .....Kv.A.	5,476,887	5,287	86,279	97,218	3,828,984
Dynamos, A.C. ....No.	847	13	45	23	260
Total capacity .....Kv.A.	5,472,623	5,287	85,979	96,366	3,828,964
Dynamos, D.C. ....No.	189	-	1	2	1
Total capacity .....Kw.	4,264	-	300	850	20
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> .....H.P.	2,408,314	2,065	87,818	29,620	92,886
Water wheels and turbines .....No.	288	-	38	6	29
Total capacity .....H.P.	2,134,845	-	80,845	12,880	78,710
Steam reciprocating engines .....No.	24	-	2	-	-
Total capacity .....H.P.	8,046	-	423	-	-
Steam turbines .....No.	44	-	3	3	2
Total capacity .....H.P.	242,715	-	5,581	16,580	10,724
Gas and oil engines .....No.	139	8	15	4	7
Total capacity .....H.P.	22,708	2,065	969	580	3,432
<b>TOTAL DYNAMO CAPACITY</b> .....Kv.A.	1,946,276	1,706	72,555	24,681	81,294
Dynamos, A.C. ....No.	457	8	58	13	58
Total capacity .....Kv.A.	1,944,573	1,706	72,555	24,681	81,294
Dynamos, D.C. ....No.	32	-	-	-	-
Total capacity .....Kw.	1,708	-	-	-	-

TABLEAU 11 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1942

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,383,929	543,817	168,275	188,947	699,160	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> .....H.P.
27.06	6.17	1.91	2.15	7.94	Pourcentage du total pour le Canada
355	43	-	10	83	Turbines et roues hydrauliques .....Nomb.
2,341,439	508,300	-	91,180	637,837	Capacité totale .....H.P.
11	6	1	17	9	Machines à vapeur, à mouvement alternatif .....Nomb.
1,870	2,568	750	5,711	1,644	Capacité totale .....H.P.
4	9	26	19	20	Turbines à vapeur .....Nomb.
36,000	29,740	144,310	85,395	52,415	Capacité totale .....H.P.
13	37	250	120	52	Moteurs à gaz et à pétrole .....Nomb.
2,620	3,209	23,215	6,661	7,264	Capacité totale .....H.P.
1,920,536	440,013	142,200	156,936	565,476	<u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A.
25.87	5.93	1.92	2.11	7.62	Pourcentage du total pour le Canada
375	89	135	90	157	Dynamos, C.A. ....Nomb.
1,920,491	439,967	140,497	154,075	565,334	Capacité totale .....Kv.A.
2	5	140	65	5	Dynamos, C.D. ....Nomb.
45	46	1,703	2,861	142	Capacité totale .....Kw.
554,094	366,644	59,463	121,087	686,895	<u>USINES COMMERCIALES</u>
169	23	-	10	74	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
543,779	353,300	-	91,180	628,067	Turbines et roues hydrauliques .....Nomb.
5	1	-	13	5	Capacité totale .....H.P.
85	20	-	3,751	1,064	Machines à vapeur, à mouvement alternatif .....Nomb.
2	5	12	6	19	Capacité totale .....H.P.
8,500	12,000	46,765	20,300	52,265	Turbines à vapeur .....Nomb.
7	20	185	109	46	Capacité totale .....H.P.
1,730	1,324	12,698	5,856	5,499	Moteurs à gaz et à pétrole .....Nomb.
					Capacité totale .....H.P.
465,587	290,407	49,052	97,401	556,874	<u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A.
176	44	78	70	138	Dynamos, C.A. ....Nomb.
465,577	290,386	47,807	95,725	556,532	Capacité totale .....Kv.A.
1	2	116	61	5	Dynamos, C.D. ....Nomb.
10	21	1,245	1,676	142	Capacité totale .....Kw.
1,829,635	177,173	108,612	67,860	12,265	<u>USINES MUNICIPALES</u>
186	20	-	-	9	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
1,797,660	155,000	-	-	9,770	Turbines et roues hydrauliques .....Nomb.
8	5	1	4	4	Capacité totale .....H.P.
1,785	2,548	750	1,960	580	Machines à vapeur, à mouvement alternatif .....Nomb.
2	6	14	13	1	Capacité totale .....H.P.
29,500	17,740	97,545	65,095	150	Turbines à vapeur .....Nomb.
6	17	65	11	6	Capacité totale .....H.P.
890	1,885	10,517	805	1,785	Moteurs à gaz et à pétrole .....Nomb.
					Capacité totale .....H.P.
1,454,949	149,606	95,148	59,535	8,802	<u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A.
199	45	57	20	19	Dynamos, C.A. ....Nomb.
1,454,914	149,581	92,690	58,350	8,802	Capacité totale .....Kv.A.
1	3	24	4	-	Dynamos, C.D. ....Nomb.
55	25	458	1,185	-	Capacité totale .....Kw.



TABLE 12 - MAIN PLANT EQUIPMENT, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> .....H.P.					
Per cent of total for Canada .....	100.00	0.11	2.05	1.64	51.59
Water wheels and turbines .....No.	854	7	57	17	282
Total capacity .....H.P.	8,234,285	392	107,015	107,010	4,441,112
Steam reciprocating engines .....No.	34	-	1	5	-
Steam turbines .....H.P.	8,945	-	500	3,180	-
Gas and oil engines .....H.P.	73	4	14	8	1
Total capacity .....H.P.	328,641	6,680	68,436	50,080	150
Gas and oil engines .....No.	473	11	14	8	7
Total capacity .....H.P.	41,825	2,142	873	980	2,700
<b>TOTAL DYNAMO CAPACITY</b> .....Kv.A.					
Per cent of total for Canada .....	100.00	0.10	2.04	1.65	53.42
Dynamos, A.C. ....	1,194	20	87	31	288
Total capacity .....Kv.A.	7,252,380	6,945	147,870	119,012	3,876,584
Dynamos, D.C. ....	218	-	-	2	1
Total capacity .....Kw.	4,567	-	-	850	20
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> .....H.P.					
Per cent of total for Canada .....	100.00	0.11	1.43	1.78	89.59
Water wheels and turbines .....No.	566	7	19	11	253
Total capacity .....H.P.	6,099,440	392	26,170	94,150	4,362,402
Steam reciprocating engines .....No.	19	-	-	5	-
Total capacity .....H.P.	5,197	-	500	3,180	-
Steam turbines .....No.	38	4	11	3	1
Total capacity .....H.P.	142,790	6,680	62,855	15,700	160
Gas and oil engines .....No.	348	3	2	2	2
Total capacity .....H.P.	21,959	77	144	600	180
<b>TOTAL DYNAMO CAPACITY</b> .....Kv.A.					
Per cent of total for Canada .....	100.00	0.10	1.41	1.77	70.92
Dynamos, A.C. ....	768	12	34	19	254
Total capacity .....Kv.A.	5,383,905	5,239	75,851	94,331	3,805,859
Dynamos, D.C. ....	188	-	-	2	1
Total capacity .....Kw.	2,864	-	-	850	20
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> .....H.P.					
Per cent of total for Canada .....	100.00	0.09	3.72	1.28	5.47
Water wheels and turbines .....No.	288	-	38	6	29
Total capacity .....H.P.	2,134,845	-	80,845	12,860	78,710
Steam reciprocating engines .....No.	15	-	-	-	-
Total capacity .....H.P.	3,748	-	-	-	-
Steam turbines .....No.	35	-	3	3	-
Total capacity .....H.P.	185,851	-	5,581	16,380	-
Gas and oil engines .....No.	125	8	12	4	5
Total capacity .....H.P.	19,868	2,065	729	380	2,520
<b>TOTAL DYNAMO CAPACITY</b> .....Kv.A.					
Per cent of total for Canada .....	100.00	0.09	3.81	1.31	5.73
Dynamos, A.C. ....	426	8	53	13	34
Total capacity .....Kv.A.	1,888,455	1,706	72,019	24,681	70,525
Dynamos, D.C. ....	32	-	-	-	-
Total capacity .....Kw.	1,703	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> .....Kv.A.					
Per cent of total for Canada .....	100.00	0.01	1.25	1.33	55.88
Dynamos, A.C. ....	846	8	58	18	280
Total capacity .....Kv.A.	6,932,958	359	86,584	92,058	3,873,992
Dynamos, D.C. ....	4	-	-	1	1
Total capacity .....Kw.	290	-	-	200	20
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> .....Kv.A.					
Per cent of total for Canada .....	100.00	2.04	18.93	8.54	0.73
Dynamos, A.C. ....	348	14	29	15	8
Total capacity .....Kv.A.	319,404	6,586	61,286	26,974	2,372
Dynamos, D.C. ....	214	-	-	1	-
Total capacity .....Kw.	4,277	-	-	650	-

X - Capacity of one hydraulic station in Saskatchewan included in Manitoba.



TABLEAU 12 - OUTILLAGE DES USINES PRINCIPALES, 1942

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,342,754	x 512,727	x 168,275	169,984	648,706	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
27.20	5.95	1.06	1.97	7.53	Pourcentage du total pour le Canada .....
355	43	-	10	83	Roues hydrauliques et turbines .....Nomb.
2,341,459	508,500	-	91,180	637,837	Capacité totale .....H.P.
7	5	1	10	5	Machines à vapeur, à mouvement alternatif .....Nomb.
270	818	750	2,958	409	Capacité totale .....H.P.
-	2	26	15	5	Turbines à vapeur .....Nomb.
-	1,250	144,310	70,395	7,340	Capacité totale .....H.P.
9	30	250	113	33	Moteurs à gaz et à pétrole .....Nomb.
1,045	2,359	23,215	5,451	3,060	Capacité totale .....H.P.
1,887,039	411,302	142,200	140,274	525,051	<u>CAPACITE DES DYNAMOS</u> .....Kv.A.
26.00	5.67	1.96	1.93	7.23	Pourcentage du total pour le Canada .....
364	74	135	74	121	Dynamos, C.A. ....Nomb.
1,886,994	411,256	140,497	138,513	524,909	Capacité totale .....Kv.A.
2	5	140	63	5	Dynamos, C.D. ....Nomb.
45	46	1,703	1,761	142	Capacité totale .....Kw.
544,019	354,644	59,463	102,124	637,956	<u>USINES COMMERCIALES</u>
8.68	5.66	0.95	1.63	10.17	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
169	23	-	10	74	Pourcentage du total pour le Canada .....
543,779	355,300	-	91,180	628,067	Turbines et roues hydrauliques .....Nomb.
3	1	-	6	2	Capacité totale .....H.P.
85	20	-	998	414	Machines à vapeur, à mouvement alternatif .....Nomb.
-	-	12	2	5	Capacité totale .....H.P.
-	-	46,765	5,300	7,340	Turbines à vapeur .....Nomb.
3	20	185	102	29	Capacité totale .....H.P.
155	1,324	12,698	4,646	2,135	Moteurs à gaz et à pétrole .....Nomb.
458,305	279,157	49,052	80,739	517,386	Capacité totale .....H.P.
8.54	5.20	0.92	1.50	9.64	<u>CAPACITE DES DYNAMOS</u> .....Kv.A.
171	41	78	54	106	Pourcentage du total pour le Canada .....
458,295	279,136	47,807	80,183	517,244	Dynamos, C.A. ....Nomb.
1	2	116	59	5	Capacité totale .....Kv.A.
10	21	1,245	576	142	Dynamos, C.D. ....Nomb.
1,798,735	158,083	108,812	67,860	10,750	Capacité totale .....Kw.
76.73	6.74	4.64	2.89	0.46	<u>USINES MUNICIPALES</u>
186	20	-	-	9	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
1,797,660	155,000	-	-	9,770	Pourcentage du total pour le Canada .....
4	4	1	4	2	Turbines et roues hydrauliques .....Nomb.
185	798	750	1,960	55	Capacité totale .....H.P.
-	2	14	13	-	Machines à vapeur, à mouvement alternatif .....Nomb.
-	1,250	97,545	65,095	-	Capacité totale .....H.P.
6	10	65	11	4	Turbines à vapeur .....Nomb.
890	1,035	10,517	805	825	Capacité totale .....H.P.
1,428,754	132,145	93,148	59,535	7,665	<u>CAPACITE DES DYNAMOS</u> .....Kv.A.
75.59	6.99	4.93	3.15	0.40	Pourcentage du total pour le Canada .....
193	33	57	20	15	Dynamos, C.A. ....Nomb.
1,428,699	132,120	92,690	58,350	7,665	Capacité totale .....Kv.A.
1	3	24	4	-	Dynamos, C.D. ....Nomb.
35	25	458	1,185	-	Capacité totale .....Kw.
1,888,067	407,600	-	71,600	514,786	<u>USINES HYDRAULIQUES</u>
27.20	5.88	-	1.03	7.42	<u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A.
351	43	-	10	82	Pourcentage du total pour le Canada .....
1,888,067	407,600	-	71,600	514,716	Dynamos, C.A. ....Nomb.
-	-	-	-	2	Capacité totale .....Kv.A.
-	-	-	-	70	Dynamos, C.D. ....Nomb.
-	-	-	-	-	Capacité totale .....Kw.
972	3,702	142,200	68,674	10,265	<u>USINES A COMBUSTIBLE</u>
0.80	1.14	43.93	21.22	3.17	<u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A.
13	51	135	64	39	Pourcentage du total pour le Canada .....
927	3,656	140,497	66,913	10,193	Dynamos, C.A. ....Nomb.
2	5	140	63	3	Capacité totale .....Kv.A.
45	46	1,703	1,761	72	Dynamos, C.D. ....Nomb.
-	-	-	-	-	Capacité totale .....Kw.

X - Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.

TABLE 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>PRIMARY POWER</b>						
Water wheels and turbines .....No.	854	7	57	17	232	555
Total H.P.	8,234,285	592	107,015	107,010	4,441,112	2,341,489
Under 500 H.P. ....No.	134	7	19	2	50	53
Total H.P.	28,320	592	4,725	710	6,118	12,249
500 - 2,000 H.P. ....No.	219	-	19	4	60	124
Total H.P.	236,169	-	19,900	3,800	65,294	155,055
2,000 - 5,000 H.P. ....No.	138	-	12	6	55	66
Total H.P.	406,771	-	41,590	17,500	99,000	188,955
5,000 - 10,000 H.P. ....No.	113	-	7	1	37	55
Total H.P.	745,225	-	41,000	5,000	233,400	225,000
10,000 - 15,000 H.P. ....No.	82	-	-	-	28	45
Total H.P.	950,400	-	-	-	501,900	559,700
15,000 - 25,000 H.P. ....No.	58	-	-	4	20	11
Total H.P.	1,083,500	-	-	80,000	400,500	182,500
25,000 - 50,000 H.P. ....No.	74	-	-	-	55	8
Total H.P.	2,594,900	-	-	-	2,037,900	188,000
50,000 H.P. and up .....No.	46	-	-	-	21	15
Total H.P.	2,189,000	-	-	-	1,298,000	890,000
<b>Steam reciprocating engines</b>						
.....No.	34	-	1	5	-	7
Total H.P.	8,945	-	500	3,180	-	270
Under 500 H.P. ....No.	27	-	-	2	-	7
Total H.P.	3,235	-	-	280	-	270
500 H.P. and up .....No.	7	-	1	3	-	-
Total H.P.	5,710	-	500	2,900	-	-
<b>Steam turbines</b>						
.....No.	73	4	14	6	1	-
Total H.P.	328,641	6,680	68,436	30,080	150	-
Under 500 H.P. ....No.	5	-	-	-	1	-
Total H.P.	1,112	-	-	-	150	-
500 - 2,000 H.P. ....No.	20	5	2	1	-	-
Total H.P.	22,699	4,180	2,256	700	-	-
2,000 - 5,000 H.P. ....No.	26	1	6	5	-	-
Total H.P.	77,501	2,580	17,405	11,000	-	-
5,000 - 10,000 H.P. and up .....No.	22	-	6	2	-	-
Total H.P.	227,329	-	48,775	18,580	-	-
Gas and oil engines .....No.	473	11	14	6	7	9
Total H.P.	41,825	2,142	873	980	2,700	1,045
<b>SECONDARY POWER</b>						
Dynamos, A.C. and D.C. ....No.	1,412	20	87	35	289	356
Total Kw.	7,256,927	6,945	147,870	119,862	5,876,584	1,887,039
.....No.	1,194	20	87	31	288	354
Total Kv.A.	7,252,360	6,945	147,870	119,012	5,876,584	1,886,994
Under 50 Kv.A. ....No.	108	5	9	-	4	7
Total Kv.A.	5,079	136	256	-	159	198
50 - 200 Kv.A. ....No.	182	6	14	7	18	50
Total Kv.A.	19,615	493	1,486	802	1,655	3,751
200 - 500 Kv.A. ....No.	143	5	16	2	24	43
Total Kv.A.	44,635	1,486	5,113	675	8,468	15,485
500 - 1,000 Kv.A. ....No.	138	1	9	4	38	68
Total Kv.A.	98,669	625	6,445	2,750	27,600	48,820
1,000 - 5,000 Kv.A. ....No.	280	3	31	12	55	118
Total Kv.A.	653,765	4,205	82,395	29,475	114,295	252,610
5,000 - 10,000 Kv.A. ....No.	114	-	8	2	25	48
Total Kv.A.	797,797	-	52,175	15,510	186,020	559,592
10,000 - 15,000 Kv.A. ....No.	73	-	-	-	32	25
Total Kv.A.	789,825	-	-	-	333,660	267,040
15,000 - 25,000 Kv.A. ....No.	67	-	-	4	26	8
Total Kv.A.	1,199,000	-	-	70,000	454,250	154,000
25,000 - 50,000 Kv.A. ....No.	64	-	-	-	50	12
Total Kv.A.	2,473,757	-	-	-	1,870,257	515,500
50,000 Kv.A. and up .....No.	25	-	-	-	20	5
Total Kv.A.	1,172,000	-	-	-	900,000	272,000
<b>Dynamos, D.C.</b>						
.....No.	218	-	-	2	1	2
Total Kw.	4,567	-	-	850	20	45
Under 50 Kw. ....No.	213	-	-	-	1	2
Total Kw.	2,447	-	-	-	20	45
50 - 200 Kw. ....No.	1	-	-	-	-	-
Total Kw.	120	-	-	-	-	-
200 - 500 Kw. ....No.	2	-	-	1	-	-
Total Kw.	600	-	-	200	-	-
500 Kw. and up .....No.	2	-	-	1	-	-
Total Kw.	1,400	-	-	650	-	-







TABLE 14 - ELECTRIC ENERGY GENERATED, 1942

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>ALL STATIONS</b>					
Total kilowatt hours generated ..... (thousands)	57,555,179	13,096	516,828	489,469	20,803,715
Per cent of total for Canada .....	100.00	0.04	1.58	1.51	55.69
Kilowatt hours generated by non-generating stations ..... (thousands)	10,608	-	10,508	-	54
Kilowatt hours generated by generating stations . (thousands)	37,344,571	13,096	506,320	489,469	20,803,661
Kv.A. capacity of generating stations .....	7,392,774	6,995	148,020	119,862	5,900,278
Ratio of output to maximum capacity .....p.c.	59.21	21.58	39.28	46.62	65.49
Average kilowatt hours per Kv.A. ....	5,051	1,875	3,421	4,084	5,554
<b>GENERATING STATIONS</b>					
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated ..... (thousands)	28,166,845	9,911	267,619	395,139	20,581,702
Kv.A. capacity .....	5,462,335	5,287	76,001	95,181	5,828,984
Ratio of output to maximum capacity .....p.c.	60.70	21.40	40.66	47.39	64.05
Average kilowatt hours per Kv.A. ....	5,157	1,875	3,521	4,151	5,575
<b>Hydraulic Stations</b>					
Kilowatt hours generated ..... (thousands)	27,833,556	480	91,758	361,461	20,581,505
Kv.A. capacity .....	5,319,199	407	20,076	81,975	5,828,712
Ratio of output to maximum capacity .....p.c.	61.64	13.48	54.53	50.35	64.04
Average kilowatt hours per Kv.A. ....	5,235	1,179	4,570	4,409	5,576
<b>Fuel Stations</b>					
Kilowatt hours generated ..... (thousands)	333,509	9,451	175,881	53,678	399
Kv.A. capacity .....	143,136	4,880	55,925	13,206	272
Ratio of output to maximum capacity .....p.c.	26.59	22.07	55.90	29.11	18.75
Average kilowatt hours per Kv.A. ....	2,329	1,933	3,145	2,550	1,467
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated ..... (thousands)	9,177,726	3,185	258,701	94,530	221,959
Kv.A. capacity .....	1,930,439	1,706	72,019	24,681	71,294
Ratio of output to maximum capacity .....p.c.	55.08	21.31	57.83	45.65	55.54
Average kilowatt hours per Kv.A. ....	4,754	1,867	3,514	3,822	5,115
<b>Hydraulic Stations</b>					
Kilowatt hours generated ..... (thousands)	8,796,224	-	225,626	20,590	216,615
Kv.A. capacity .....	1,749,894	-	66,658	10,265	69,194
Ratio of output to maximum capacity .....p.c.	58.53	-	58.64	22.90	55.74
Average kilowatt hours per Kv.A. ....	5,027	-	3,585	2,006	5,151
<b>Fuel Stations</b>					
Kilowatt hours generated ..... (thousands)	381,502	3,185	13,075	73,740	5,344
Kv.A. capacity .....	180,545	1,706	5,561	14,418	2,100
Ratio of output to maximum capacity .....p.c.	24.12	21.51	27.84	58.58	29.05
Average kilowatt hours per Kv.A. ....	2,113	1,867	2,439	5,114	2,545
<b>TOTAL HYDRAULIC STATIONS</b>					
Kilowatt hours generated ..... (thousands)	36,629,760	480	317,364	582,051	20,797,918
Kv.A. capacity .....	7,069,095	407	86,754	92,258	5,897,906
Ratio of output to maximum capacity .....p.c.	60.81	13.46	42.19	47.28	63.51
Average kilowatt hours per Kv.A. ....	5,182	1,179	3,659	4,142	5,356
Kilowatt hours generated by water power ..... (thousands)	36,582,955	406	317,545	582,051	20,797,594
Kilowatt hours generated by auxiliary plants ..... (thousands)	46,807	74	19	-	524
<b>TOTAL FUEL STATIONS</b>					
Kilowatt hours generated ..... (thousands)	714,811	12,616	188,956	107,418	5,745
Kv.A. capacity .....	323,681	6,586	61,286	27,624	2,572
Ratio of output to maximum capacity .....p.c.	25.21	21.87	35.19	44.59	27.64
Average kilowatt hours per Kv.A. ....	2,208	1,916	3,085	3,869	2,421
<b>CONSUMPTION OF ELECTRIC ENERGY (THOUSANDS OF KILOWATT HOURS) ..</b>					
Total kilowatt hours generated .....	37,355,179	13,096	516,828	489,469	20,803,715
Kilowatt hours imported from the United States .....	594	-	-	7	258
Kilowatt hours imported from other provinces .....	-	-	-	6,847	75,987
Kilowatt hours exported to the United States .....	2,453,739	-	-	30,371	1,265
Kilowatt hours exported to other provinces .....	-	-	-	139	5,186,017
<b>KILOWATT HOURS FOR CONSUMPTION IN CANADA ..... (THOUSANDS)</b>					
Domestic service .....	54,902,054	13,096	516,828	465,815	15,692,658
Commercial light .....	2,716,895	3,580	51,877	34,696	368,175
Small power .....	1,512,555	2,419	55,602	24,685	324,522
Large power .....	654,251	819	51,221	10,097	108,303
Street lighting .....	25,478,185	4,166	336,511	373,722	13,705,205
Free service (other than street lighting) .....	199,217	349	5,402	4,215	40,129
Losses .....	70,411	37	35	216	64,697
	3,490,540	1,726	56,382	18,184	1,081,829

\* Excludes exports to other provinces and/or to the United States.

TABLEAU 14 - ENERGIE ELECTRIQUE GENEREE, 1942

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
10,181,711 27.26	2,080,810 5.57	211,557 0.57	418,704 1.12	2,639,289 7.06	<u>TOUTES USINES</u> Total kw. heure générés ..... (milliers) Pourcentage du total pour le Canada ..... Kilowatt-heure générés par les usines non-génératrices ..... (milliers) Kilowatt-heure générés par les usines génératrices " Capacité des usines génératrices en Kv.A. .... Proportion de la production à la capacité maximum .... p.c. Moyenne de kilowatt-heure par Kv.A. ....
28 10,181,685 1,918,227 61.50 5,308	12 2,080,798 436,302 54.44 4,769	- 211,557 142,200 16.99 1,488	- 418,704 156,936 31.29 2,668	6 2,639,285 563,956 53.42 4,680	<u>USINES GENERATRICES</u> <u>USINES COMMERCIALES</u> TOTAL Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum .... p.c. Moyenne de kilowatt-heure par Kv.A. ....
2,491,242 464,493 61.22 5,363	1,446,889 290,407 56.87 4,982	72,686 49,052 16.92 1,482	277,373 97,401 33.96 2,848	2,624,284 555,529 53.93 4,724	<u>USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum .... p.c. Moyenne de kilowatt-heure par Kv.A. ....
2,490,760 464,338 61.23 5,364	1,445,732 289,350 57.03 4,996	- - - -	261,105 88,262 35.44 2,958	2,600,957 546,079 54.37 4,763	<u>USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum .... p.c. Moyenne de kilowatt-heure par Kv.A. ....
482 155 35.50 3,110	1,157 1,057 12.50 1,095	72,686 49,052 16.92 1,482	16,268 9,139 20.32 1,780	23,327 9,450 28.17 2,468	<u>USINES MUNICIPALES</u> TOTAL Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum .... p.c. Moyenne de kilowatt-heure par Kv.A. ....
7,690,441 1,453,734 61.59 5,290	633,909 145,895 49.60 4,345	138,871 93,148 17.02 1,491	141,331 59,535 27.10 2,374	14,999 8,427 20.32 1,780	<u>USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum .... p.c. Moyenne de kilowatt-heure par Kv.A. ....
7,689,359 1,452,917 61.62 5,292	630,025 143,250 50.21 4,396	- - - -	- - - -	14,009 7,612 21.00 1,840	<u>USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum .... p.c. Moyenne de kilowatt-heure par Kv.A. ....
1,082 817 15.11 1,324	3,884 2,645 16.76 1,468	138,871 93,148 17.02 1,491	141,331 59,535 27.10 2,374	990 815 13.85 1,213	<u>TOUTES USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum .... p.c. Moyenne de kilowatt-heure par Kv.A. ....
10,180,119 1,917,255 61.52 5,310 10,179,891 228	2,075,757 432,600 54.77 4,798 2,075,636 121	- - - - -	261,105 88,262 35.44 2,958 241,585 19,540	2,614,966 553,691 53.92 4,723 2,588,465 26,501	<u>TOUTES USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de production à la capacité maximum .... p.c. Moyenne de kilowatt-heure par Kv.A. .... Kw.-heure générés par force motrice hydraulique . (milliers) Kw.-heure générés par les usines auxiliaires .... (milliers)
1,564 972 18.37 1,609	5,041 3,702 15.55 1,662	211,557 142,200 16.99 1,488	157,599 68,674 26.20 2,295	24,317 10,265 27.04 2,369	<u>CONSUMMATION D'ENERGIE ELECTRIQUE (EN MILLIERS DE KW.H.)</u> Total de kilowatt-heure générés ..... Kilowatt-heure importés des Etats-Unis ..... Kilowatt-heure importés d'autres provinces ..... Kilowatt-heure exportés aux Etats-Unis ..... Kilowatt-heure exportés à d'autres provinces .....
12,864,437 1,825,780 658,149 317,742 8,489,145 89,325 680 1,705,618	2,079,999 355,928 93,814 54,399 1,508,824 22,687 32 244,315	211,594 48,858 59,791 28,507 71,080 7,922 124 19,552	434,596 49,069 45,635 51,398 225,195 10,029 2,427 52,825	2,623,013 182,914 110,120 33,965 1,964,557 19,161 2,165 310,131	<u>KILOWATT-HEURE CONSOMMES AU CANADA</u> ..... (MILLIERS) Service domestique ..... Eclairage commercial ..... Petite force motrice ..... Gross force motrice ..... Eclairage des rues ..... Service gratuit (autre que l'éclairage des rues) ..... Pertes .....

\* Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.



TABLE 15 - FUEL, 1942.

	<u>Bituminous Coal</u> Charbon bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité  Tons Tonnes	Value Valeur  \$	Quantity Quantité  Tons Tonnes	Value Valeur  \$
CANADA .....	458,688	2,029,075	301	2,787
Prince Edward Island .....	10,026	67,230	-	-
Nova Scotia .....	186,805	856,159	-	-
New Brunswick .....	89,134	439,582	-	-
Quebec .....	-	-	301	2,787
Ontario .....	561	3,098	-	-
Manitoba .....	5,291	21,835	-	-
Saskatchewan .....	116,621	535,526	-	-
Alberta .....	33,228	44,805	-	-
British Columbia and Yukon .....	17,020	60,840	-	-
	<u>Fuel Oil and Diesel Oil</u> Mazout et huile diesel		<u>Wood</u> Bois	
	Quantity Quantité  Gal. Gal.	Value Valeur  \$	Quantity Quantité  Cords Cordes	Value Valeur  \$
CANADA .....	8,103,277	721,992	6,217	27,015
Prince Edward Island .....	271,702	29,518	160	800
Nova Scotia .....	184,424	18,630	-	-
New Brunswick .....	103,250	11,308	-	-
Quebec .....	426,732	42,424	102	564
Ontario .....	165,954	18,122	-	-
Manitoba .....	233,676	45,759	5,755	25,551
Saskatchewan .....	3,431,958	297,723	200	300
Alberta .....	447,289	62,301	-	-
British Columbia and Yukon .....	2,838,292	196,227	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128. cu. feet.



TABLEAU 15 - COMBUSTIBLE, 1942

<u>Lignite Coal</u> Charbon Lignite		<u>Gasolene</u> Gasoline		<u>Kerosene</u> Kérosène	
Canadian - Canadien					
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
259,726	537,709	17,365	3,808	9,342	1,638
-	-	120	38	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	745	193	-	-
-	-	280	56	-	-
-	-	440	147	100	16
95,917	215,756	9,196	1,918	79	27
163,809	321,953	6,056	1,257	9,163	1,595
-	-	528	199	-	-
<u>Manufactured Gas</u> Gaz fabriqué		<u>Natural Gas</u> Gaz naturel		<u>Other Fuel</u> Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu. ft. 1,000 pds. cu.	\$	1,000 cu. ft. 1,000 pds. cu.	\$	\$	\$
5,222,550	62,126	63,459,682	82,520	21,455	3,490,125
-	-	-	-	-	97,586
5,222,000	62,000	-	-	200	936,989
-	-	-	-	-	450,890
-	-	-	-	-	45,968
-	-	-	-	-	21,276
-	-	-	-	6,655	99,743
-	-	-	-	-	1,051,250
550	126	63,459,682	82,520	-	514,557
-	-	-	-	14,600	271,866

Note: Tonne = 2,000 livres.  
Gallon = Impérial.  
Corde = 128 pds. cu.



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**CANADA**

**(DEPARTMENT OF TRADE AND COMMERCE**

**DOMINION BUREAU OF STATISTICS**

**TRANSPORTATION & PUBLIC UTILITIES BRANCH**

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**CENSUS OF INDUSTRY**

**1943**

*Electric power statistics*

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

*1943*

(Prepared in collaboration with the Dominion  
Water and Power Bureau, Department of  
Mines and Resources)



**OTTAWA  
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**OTTAWA**

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CENTRAL ELECTRIC STATION INDUSTRY, 1943.

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 21 stations which were holding generating equipment classed as auxiliary plant equipment. Fourteen of them purchased all their electric energy and the remaining seven generated only 5,276,000 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

Primary power produced for use in Canada (including line losses) increased from 29,396,231,000 kilowatt hours in 1939 to 35,821,306,000 kilowatt hours in 1943 or by 85 per cent, whereas secondary power consumption declined from 7,033,709,000 to 2,113,848,000 kilowatt hours or by 70 per cent. This reduction, however, was all made in the first six months of the year and increases were shown in each month for the second half of the year and also in all but two months in 1944. The increased diversion of water from the Niagara River for power purposes was an important factor in the greater production of power during the year.

The production of electric energy for secondary use each month is shown below. These sales decreased each year since war industries have been taxing the capacities of the plants to supply firm or primary power up to July, 1943. The situation eased up and more secondary power was available thereafter.

SECONDARY POWER FOR USE IN CANADA

(Thousands of Kilowatt Hours)

Month	1 9 4 0	1 9 4 1	1 9 4 2	1 9 4 3
January	571,502	254,150	263,203	129,985
February	546,239	221,700	208,221	126,124
March	484,192	235,823	264,013	148,811
April	443,481	335,398	238,672	189,265
May	588,189	388,909	291,739	263,430
June	575,863	205,865	249,143	239,342
July	565,869	229,452	141,722	199,275
August	414,632	164,271	102,224	184,787
September	326,025	270,359	94,586	181,952
October	297,519	335,863	130,769	136,424
November	309,146	407,939	147,441	158,724
December	300,526	331,706	107,380	155,729
TOTAL	5,423,183	3,381,435	2,239,113	2,113,848

The pulp and paper industry was the largest consumer of electric energy prior to the war, but because of restrictions on the use of electricity in boilers the total consumption has declined, although the consumption of primary power continued to increase. With the great development in the aluminium industry, it became in 1943 the largest consumer of electric energy. It takes approximately ten kilowatt hours to produce one pound of aluminium and the production of aluminium increased from 82,840 tons in 1939 to 495,750 tons in 1943; the production declined in 1944, particularly in the last months of the year.



The following table shows the consumption for the industries using large quantities and the disposal of central electric station output to other industries and other uses.

CONSUMPTION OF ELECTRIC ENERGY, 1943

(Thousands of Kilowatt Hours)

Industries	Power and Light	Other Purposes	Total Central Electric Station Power	P.C. of Total Production	Power Generated by the Industries
Pulp and Paper	4,571,599	1,539,242	6,110,841	16.1	1,928,185
Ferro-Alloys	17,375	1,115,573	1,132,948	3.0	-
Abrasives	16,830	897,745	914,575	2.4	-
Electro-Chemical	466,579	1,283,834	1,750,413	4.6	130,797
Metal Smelting and Refining	846,724	10,163,115	11,009,839	29.0	270,384
Steel Furnaces	112,107	327,533	439,640	1.2	61,624
<b>TOTAL</b>	<b>6,031,214</b>	<b>15,327,042</b>	<b>21,358,256</b>	<b>56.3</b>	<b>2,390,990</b>
Other Industries			6,215,900	16.4	
Domestic Service (Residential)			2,843,612	7.5	
Commercial Lighting			1,260,809	3.3	
Street Lighting			192,845	.5	
Free Service			67,330	.2	
Exports to U. S. A.			2,545,038	6.7	
Losses			3,451,364	9.1	
<b>TOTAL OUTPUT OF CENTRAL ELECTRIC STATIONS</b>			<b>37,935,154</b>	<b>100.0</b>	

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the calendar year ended Dec. 31, 1943, the export duty amounted to \$646,952. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported.

Below is a table showing the quantities of power exported for the calendar year 1943. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS EXPORTED TO THE UNITED STATES

(Calendar Years 1942 and 1943)

Company	Exported 1942	Exported 1943
	Kw. H.	Kw. H.
Hydro Electric Power Commission of Ontario .....	393,852,800	394,200,000
" " " " " " (surplus)- Niagara .....	729,150,111	797,987,458
" " " " " " " - Cornwall .....	283,214,160	287,376,480
Cedar Rapids Manufacturing and Power Co., Ltd. ....	653,517,236	643,037,269
Canadian Niagara Power Co., Ltd. ....	318,856,519	314,512,111
" " " " " " (surplus) .....	6,423,500	30,214,300
Ontario and Minnesota Power Co. ....	35,282,000	35,040,000
Maine and New Brunswick Electric Power Co. ....	25,562,379	30,889,205
British Columbia Electric Railway Co., Ltd. ....	183,150	206,320
Northport Power and Light Co. ....	273,024	16,368
Southern Canada Power Company .....	1,262,694	2,505,684
Canadian Cottons, Ltd. ....	550,800	727,100
Northern British Columbia Power Co. ....	22,310	18,020
Fraser Companies, Ltd. ....	4,258,300	6,885,000
Detroit and Windsor Subway Company .....	299,800	283,300
Manitoba Power Commission .....	1,030,200	1,139,420
<b>TOTAL .....</b>	<b>2,453,738,983</b>	<b>2,545,038,035</b>

Of the total output of 40,479,593,000 kilowatt hours, 39,660,312,000 kilowatt hours, or almost 98 p.c., was produced by water power, whereas only 758,128,000 kilowatt hours were produced by plants using only thermal engines and 61,153,000 kilowatt hours were produced by thermal auxiliary equipment in hydraulic plants and in non-generating plants.

Total hydraulic installations in all industries in Canada at the close of 1943, including active and inactive plants, as compiled by the Dominion Water and Power Bureau was 10,214,513 horse power. The available and developed water power in each province is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 4 3	1 9 4 4
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	133,384	133,384
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	5,847,322	5,848,572
Ontario .....	5,330,000	6,940,000	2,673,443	2,673,443
Manitoba .....	3,309,000	5,344,500	422,825	422,825
Saskatchewan .....	542,000	1,082,000	90,835	90,835
Alberta .....	390,000	1,049,500	94,997	94,997
British Columbia	7,023,000	10,998,000	796,024	864,024
Yukon and Northwest Territories	294,000	731,000	19,719	19,719
CANADA .....	25,439,400	39,511,700	10,214,513	10,283,763

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 51,350,000 horse power.



TABLE 1 - COMPARATIVE SUMMARY, 1933 - 1943

During the year the number of generating stations was increased by 6 including 2 hydraulic stations and 4 thermal stations. Capital invested in the industry increased to \$1,778,224,640 or by 1.7 per cent; revenues increased by only \$966,143 or less than a half of one per cent, although the production of electric energy increased by 8.4 per cent. The capacity of generators, exclusive of auxiliary equipment in hydro-electric and non-generating stations, increased by 725,100 Kv.A., or by 10 per cent, whereas water wheels and thermal engines increased by 989,098 H.P., or 11.5 per cent.

TABLE 2 - DOMESTIC SERVICE, 1934 - 1943

This table shows the number of customers, the consumption, revenue, and averages computed from these for domestic service including farm service for 1943 back to 1934. In all provinces the number of customers increased during this period, the percentages ranging from 20 per cent in Manitoba to 64 per cent in Nova Scotia. The rate of consumption also increased in all provinces, Prince Edward Island leading here with an increase of 143 per cent. All of the provinces showed increased revenues from domestic service. The average annual consumption per customer varied widely, Manitoba leading with an average in 1943 of 4,226 kw. hrs. per customer and New Brunswick showing the smallest consumption at 628 kw. hrs. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario and British Columbia have been remarkably close together throughout these ten years despite the wide variations in unit costs. Domestic services are further discussed under Table 5 and at the end of this report.

TABLE 3 - POWER PLANTS

The generating stations are the individual power plants of the central electric stations. Each building housing power machinery is counted as a generating station. The commercial organizations are companies and individuals selling electric energy and the municipalities include urban and rural municipalities, provincial commissions, etc., selling electric energy. Those generating power operate from one to several power plants each, the largest system being the Ontario Hydro-Electric Power Commission which operates 51 hydraulic plants and owns one steam auxiliary plant. The auxiliary plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations.

TABLE 4 - CAPITAL

The capital employed in the industry is reported under three heads, viz., generation transmission and distribution, and general. "Generation" includes investments in power houses, and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. "Transmission and distribution" includes all transmission and distribution towers, poles, wires, cables and conduits and right-of-way, receiving stations and substations and sites, switchboards and step-up transformers in these and in power houses, step-down transformers, meters, etc. "General" includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, grading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, or end of fiscal years, of each station operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants in which provisions have been made for future installations of equipment. The averages of total capital per unit of power are more indicative of different classes of stations and service given than costs of similar installations. The same also applies to generation capital per unit of power, only to a lesser degree.

TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service, which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick, and Alberta, which purchased power from other provinces, were lower than they should have been.

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the use of electric stoves, flat rate water heaters, the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills, aluminium plants, wholesale to Ontario, etc., showed a smaller proportion of revenue from domestic service than any other stations, although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but for domestic service and farm services, for commercial light, etc., line losses were not



Included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average revenue of 1.80 cents per kilowatt hour for all domestic service compares with an average of 3.60 cents or 3.50 cents including farm services in the United States. The average revenues per horse power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in Tables 12 and 13 were increased one horse power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro-Electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per week for each horse power purchased. It is quite probable this output is a little too high for all the power imported from Quebec, and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

The sales tax on domestic service bills has been treated by practically all central electric stations as a tax on the consumer and was not included in either revenues or expenses. The Act placed the tax on the producer or importer, but a subsequent Order in Council allowed the producer or importer to increase the charge to the consumer by the amount of the tax irrespective of any agreements, charters, etc. Only a few stations absorbed this tax, most of them passed it on to the consumer. Also provincial and municipal taxes on domestic bills, where imposed, have not been included as either revenue or expenses.

#### TABLE 6 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations. As explained above, the sales taxes on domestic bills have not been included in the taxes shown in this table.



Below is a table detailing the taxes reported by commercial and municipal stations. As stated in the foregoing, under "Revenues" these taxes do not include the federal, provincial and municipal taxes on sales of electricity for domestic use except in the few cases where the station absorbed the tax. They also do not include water rentals. The federal unemployment tax did not apply to all utility employees until September 1, 1943, but all stations apparently did not include the employer payments as a Dominion tax. Also all stations did not include the tax on gasoline used as a tax. It is common practice to treat sales taxes as part of the cost of the commodity. Some stations, however, did include gasoline taxes with their taxes. The Dominion tax included income and excess profits tax, tax on exports of electricity, and the two mentioned above. The greater part of the municipal tax paid by municipal stations was tax payments continued by the Ontario Hydro-Electric Commission on plant acquired by the Commission from commercial stations.

### T A X E S

Province	Commercial Stations				Municipal Stations			
	Municipal	Provincial	Dominion	Total	Municipal	Provincial	Dominion	Total
	\$	\$	\$	\$	\$	\$	\$	\$
P. E. Island	17,334	1,380	45,823	64,537	-	-	-	-
Nova Scotia	336,941	9,643	1,646,593	1,993,177	39,542	1,441	2	40,985
New Brunswick	62,945	13,396	242,239	318,580	45	66	-	109
Quebec	2,240,185	271,325	14,499,455	17,010,965	18,330	815	1,973	21,118
Ontario	436,087	6,456	1,829,742	2,272,285	366,974	18,683	393,874	779,531
Manitoba	125,862	1,650	7	127,519	90,517	-	-	90,517
Saskatchewan	102,643	20	299,732	402,395	56,063	-	-	56,063
Alberta	44,416	1,670	607,222	653,308	122,012	281	-	122,293
Br. Columbia,								
Yukon & N.W.T.	334,234	180,214	4,015,585	4,530,033	-	9	-	9
TOTAL	3,700,647	485,754	23,186,398	27,372,799	693,481	21,295	395,849	1,100,625
TOTAL-Commercial	3,700,647	485,754	23,186,398	27,372,799				
" -Municipal	693,481	21,295	395,849	1,100,625				
TOTAL	4,394,128	507,049	23,582,247	28,483,424				

TABLE 7 - EMPLOYEES

There was a net decrease of 644 employees during the year, Ontario stations accounting for 30 per cent of the decrease. The following table analyses the hours of work of wage earners in the industry. The majority, 63 per cent, worked a 48 hour week and 20.4 per cent worked 44 hours or less per week.

NUMBER OF WAGE EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS PER WEEK WERE:

Hours per week	40 or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60 & over	Total
P.E.I.	-	-	-	-	28	-	-	-	-	-	2	30
N. S.	183	10	37	8	215	28	9	54	6	151	77	778
N. B.	19	28	18	10	104	21	6	61	6	46	14	333
Quebec	285	1	19	2	3,049	92	-	215	2	136	80	3,881
Ontario	466	29	571	247	3,153	189	21	204	12	163	54	5,109
Manitoba	10	-	128	-	255	10	-	7	-	-	-	410
Sask.	31	3	70	38	209	1	10	42	-	5	8	417
Alberta	86	3	154	7	172	-	-	2	-	5	-	429
B.C. & Yukon	180	66	148	11	699	-	3	1	-	5	4	1,117
CANADA	1,260	140	1,145	323	7,884	341	49	586	26	511	239	12,504
C.of Total	10.1	1.1	9.2	2.6	63.0	2.7	.4	4.7	.2	4.1	1.9	100.0

TABLE 8 - CUSTOMERS

As explained under table 5, stations are asked for a division of customers into seven classes, but due to the inability of many stations to make complete segregations between domestic service and farm customers these two have been combined. Also some stations group all their rural customers and classify them as farm. The total of these farm customers reported in 1943 was 115,881 or 8.5 per cent of the total of farm and domestic customers. Ontario stations reported 66,686, Quebec stations reported 30,138, and stations in the other provinces reported 19,057 farm customers.

The average number of domestic customers per 100 population has increased from 8.86 in 1920 to 15.68 in 1943, or by 77 per cent during this period.

TABLE 9 - POLE LINE MILEAGE

Transmission and distribution lines are combined in this table and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roads serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileage.

TABLES 10-11-12-13 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the main plant equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held in reserve for emergencies, only 55,877,000 kilowatt hours being generated during the year by this auxiliary equipment.

TABLE 14 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for station purposes, and consequently includes all transformer and line losses entailed



in delivering power to the consumers. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the rated capacity of a 1,000 Kv.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. In some cases this changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly, especially up to 1937. Since the outbreak of the war the supply of surplus power has been greatly reduced and with war industries working twenty four hours per day the supply of off-peak power has also been reduced so that sales of secondary power have shown a steady decrease up to the middle of 1943 when they began to increase again.

#### TABLE 15 - FUEL

Fuel used is almost entirely local coal, oil and gas, and Saskatchewan and Nova Scotia are the only provinces using any substantial quantities of fuel to develop electric energy. Nova Scotia has several large hydro-electric developments, but Saskatchewan has only one which is on the Manitoba boundary and is included with Manitoba stations in these statistics. "Other fuel" is composed of steam purchased by a Nova Scotia station and sawdust and "hog" fuel in British Columbia.

#### DOMESTIC SERVICE

In the following table data on domestics are brought together and analysed. As might be expected the provinces with relatively high percentages of rural populations, Prince Edward Island, Saskatchewan and Alberta, show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of the use. Manitoba's low unit cost and high average consumption are influenced by flat rate water heaters in Winnipeg which induce high consumption per customer. There was also a large number of flat rate water heaters in Ontario. Also where hydro-electric power is plentiful the rates are generally low and



and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and large consumption by pulp and paper, aluminium and other electric metallurgical plants.

Domestic customers in Ontario used almost 60 p.c. of the total power used by all domestic customers in Canada but the population of this province was almost a third of the total for the Dominion.

These bills do not include federal, provincial and municipal sales taxes paid by the consumers.

DOMESTIC SERVICE, 1943

Province	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	P.C. of total Provincial Consumption	P.C. of Dominion Dom. Service Consumption
P. E. Island	5,715	6.28	38.13	5.59	682	43	26.6	.1
Nova Scotia	80,244	13.22	26.88	3.76	714	94	9.9	2.0
New Brunswick	56,239	12.15	29.54	4.71	628	76	7.4	1.3
Quebec	507,765	14.69	21.25	2.71	784	115	2.2	14.0
Ontario	801,430	20.46	28.70	1.37	2,099	430	13.0	59.2
Manitoba	88,528	12.19	41.93	.99	4,226	515	16.8	13.2
Saskatchewan	55,500	6.59	40.68	4.61	883	58	21.1	1.7
Alberta	77,810	9.82	32.31	4.83	670	66	10.0	1.8
B.C. & Yukon	179,136	19.54	27.88	2.62	1,066	208	7.3	6.7
CANADA	1,852,367	15.68	27.70	1.80	1,535	241	7.5	100.0

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TABLE 1 - COMPARATIVE SUMMARY, 1934-1943

PRINCIPAL DATA BY CLASS OF STATION	1943	1942	1941	1940	1939
<b>ELECTRIC POWER PLANTS</b>					
Total .....	622	616	607	602	611
Hydraulic .....	322	320	313	313	313
Fuel .....	300	296	294	289	298
Commercial .....	425	428	424	421	427
Municipal .....	197	188	183	181	184
<b>CAPITAL</b>					
Total .....	1,778,224,640	1,747,891,798	1,641,460,451	1,615,438,140	1,524,603,211
Commercial .....	1,149,225,710	1,127,978,332	1,054,714,025	1,049,506,904	1,014,704,665
Municipal .....	628,998,930	619,913,466	586,746,426	565,931,236	549,898,546
Generating .....	1,584,624,501	1,559,495,388	1,459,900,540	1,440,026,870	1,396,838,921
Non-generating .....	193,600,139	188,336,410	181,559,911	175,411,270	167,764,290
<b>REVENUE (1)</b>					
Total .....	204,801,508	203,835,365	186,018,040	166,228,773	151,880,969
Commercial .....	124,730,993	124,611,713	111,851,778	99,887,052	92,535,049
Municipal .....	80,070,515	79,223,652	74,166,262	66,341,721	59,345,920
Generating .....	175,217,757	175,916,640	157,283,409	139,875,392	127,483,222
Non-generating .....	29,583,751	29,918,725	28,734,331	26,555,381	24,397,747
<b>EXPENSES (2)</b>					
Total .....	135,555,469	132,581,418	117,758,977	105,044,158	91,982,372
Commercial .....	72,579,621	71,133,582	60,561,621	51,990,160	42,471,534
Municipal .....	62,975,848	61,448,036	57,197,356	53,053,998	49,510,838
Generating .....	81,500,674	80,171,586	69,148,513	60,752,761	51,570,137
Non-generating .....	54,054,795	52,409,832	48,610,464	44,291,397	40,412,235
<b>POLE LINE MILEAGE</b>					
Total .....	78,063	77,909	77,253	75,050	72,132
Commercial .....	32,085	31,847	31,442	30,933	30,288
Municipal .....	45,978	46,062	45,811	44,117	41,844
Generating .....	61,710	61,927	61,495	59,676	57,084
Non-generating .....	16,353	15,982	15,758	15,374	15,048
<b>CUSTOMERS</b>					
Total .....	2,169,148	2,125,304	2,081,270	2,006,508	1,941,663
Domestic service (3) .....	1,852,367	1,803,708	1,755,917	1,686,388	1,623,672
Commercial light .....	259,640	264,706	268,977	265,175	262,590
Power (small) .....	44,948	44,813	44,071	43,138	43,896
Power (large) .....	9,772	9,673	9,954	9,490	9,267
Street lighting .....	2,421	2,404	2,371	2,317	2,238
Commercial stations .....	1,009,603	985,059	954,906	926,093	889,418
Municipal stations .....	1,159,545	1,140,245	1,126,364	1,088,415	1,052,245
Generating stations .....	1,129,272	1,108,539	1,079,233	1,032,433	998,067
Non-generating stations .....	1,039,876	1,021,765	1,002,037	982,075	943,596
<b>ELECTRIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	40,479,593	37,355,179	33,317,663	30,109,283	28,338,030
Commercial .....	31,082,239	28,177,387	24,793,715	22,267,270	21,290,930
Municipal .....	9,397,354	9,177,792	8,523,948	7,822,013	7,047,100
Exports to the United States .....(thousands) Kw.h.	2,545,038	2,453,739	2,354,229	2,132,129	1,908,756
Imports from the United States ....(thousands) Kw.h.	599	594	670	655	666
<b>EQUIPMENT IN GENERATING STATIONS (Main Plant Only)</b>					
Total Primary Power .....	9,602,794	8,613,696	8,157,585	7,935,867	7,607,122
Total in commercial stations .....	7,239,936	6,269,386	5,917,160	5,708,664	5,385,632
Total in municipal stations .....	2,362,858	2,344,310	2,240,425	2,227,203	2,221,490
Total Secondary Power .....	7,982,027	7,256,927	6,851,785	6,591,211	6,435,416
Total in commercial stations .....	6,074,895	5,366,769	5,054,727	4,906,268	4,654,745
Total in municipal stations .....	1,907,132	1,890,158	1,797,058	1,784,943	1,780,671
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	194,822	194,966	194,651	194,914	194,139
Secondary power .....	166,010	166,236	166,021	166,367	165,785

- (1) Cost of power interchanged between stations excluded from revenue of purchasing stations. (See page 7 ).  
 (2) Includes wages, cost of power, fuel and taxes, but not other expenses.  
 (3) Farm service is included with domestic service.



TABLEAU 1 - SOMMAIRE COMPARATIF, 1934-1943

1938	1937	1936	1935	1934	DONNÉES PRINCIPALES PAR CLASSES D'USINES
					<u>USINES ÉLECTRIQUES</u>
589	508	561	506	573	Total
313	314	312	310	314	Hydrauliques
276	254	249	250	259	A combustible
400	389	390	397	402	Commerciales
183	179	171	169	171	Municipales
					<u>CAPITAL</u>
1,545,418,592	1,497,330,251	1,483,116,649	1,459,821,168	1,430,852,166	Total
1,002,891,485	979,950,159	957,466,865	962,263,142	956,382,436	Commerciales
542,525,107	517,380,072	525,649,784	497,558,026	474,469,730	Municipales
1,377,120,289	1,337,399,395	1,326,820,103	1,307,710,173	1,281,048,308	Génératrices
138,296,303	159,930,536	156,296,546	152,110,995	149,903,863	Non-génératrices
					<u>RECETTES (1)</u>
144,331,827	143,546,643	135,865,176	127,177,954	124,463,613	Total
87,897,078	85,283,008	78,882,504	79,341,554	77,309,001	Commerciales
56,834,549	58,263,635	56,982,669	47,836,400	47,154,612	Municipales
120,784,939	120,465,155	112,776,015	105,638,584	104,089,041	Génératrices
23,546,688	23,081,508	23,089,158	21,539,370	20,374,572	Non-génératrices
					<u>DEPENSES (2)</u>
87,364,340	84,185,082	77,939,050	79,625,134	75,948,821	Total
41,067,998	41,132,931	36,530,527	33,836,054	31,778,237	Commerciales
46,296,342	43,052,151	41,408,523	45,789,080	44,170,584	Municipales
49,946,422	46,114,640	41,590,019	43,904,771	40,911,118	Génératrices
38,417,918	38,070,442	36,549,051	35,720,363	35,037,703	Non-génératrices
					<u>LIGNES SUR POTEAUX</u>
66,977	63,035	59,436	57,602	56,214	Total
29,355	28,532	27,271	26,520	26,476	Commerciales
37,622	34,703	32,165	31,082	29,738	Municipales
52,373	48,966	45,099	43,372	42,537	Génératrices
14,504	14,169	14,337	14,230	13,677	Non-génératrices
					<u>ABONNÉS</u>
1,873,821	1,805,995	1,740,793	1,694,703	1,660,079	Total
1,559,394	1,500,128	1,443,059	1,401,983	1,379,153	Service domestique (3)
259,893	252,305	245,144	240,468	229,187	Eclairage commercial
41,999	41,415	40,742	40,292	41,429	Force motrice (petite)
10,152	10,066	9,840	9,989	8,325	Force motrice (grosse)
2,183	2,081	2,008	1,971	1,985	Eclairage des rues
859,506	833,711	802,676	779,400	760,462	Usines commerciales
1,014,115	972,284	938,117	915,302	899,617	Usines municipales
954,797	916,648	866,407	837,278	819,419	Usines génératrices
918,824	889,347	874,586	857,425	840,660	Usines non-génératrices
					<u>ÉNERGIE ÉLECTRIQUE GÉNÉRÉE</u>
26,154,160	27,687,645	25,402,282	23,283,033	21,197,124	Total Kw. heures générés (milliers)
19,488,323	20,315,627	18,515,225	17,767,949	16,060,883	Commerciale
6,665,827	7,372,016	6,887,057	5,515,084	5,136,241	Municipale
1,822,103	1,843,227	1,573,980	1,359,021	1,243,079	Exportations d'électricité aux États-Unis ..... (milliers) Kw.h.
624	1,317	765	656	642	Importations d'électricité des États-Unis ..... (milliers) Kw.h.
					<u>MAINTIEN DANS LES USINES GÉNÉRATRICES</u>
7,476,976	7,342,085	7,119,272	7,104,142	6,854,161	(Usines principales seulement)
5,200,183	5,203,529	5,012,968	5,136,200	4,961,639	Total force motrice primaire ..... H.P.
2,176,793	2,138,556	2,106,304	1,965,942	1,892,522	Total dans les usines commerciales .... H.P.
6,327,668	6,206,465	6,025,999	5,893,384	5,693,955	Total dans les usines municipales ..... H.P.
4,580,273	4,436,443	4,340,869	4,317,823	4,179,536	Total force motrice secondaire ..... Kw.A.
1,741,595	1,710,022	1,685,130	1,576,161	1,520,419	Total dans les usines commerciales ... Kw.A.
					Total dans les usines municipales .... Kw.A.
					<u>OUTILLAGE D'USINES AUXILIAIRES</u>
195,626	197,350	200,621	206,831	207,431	Force motrice primaire ..... H.P.
166,660	167,839	172,327	176,890	177,244	Force motrice secondaire ..... Kw.A.

- (1) Le coût de l'énergie échangée entre stations est exclu du revenu des stations en faisant l'achat. (Voir p.7).  
 (2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.  
 (3) L'éclairage des fermes est inclus dans l'éclairage domestique.

TABLE 2 - DOMESTIC SERVICE, 1934 - 1943

	Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
	Année	Nombre d'usagers	Kilowatt heures consommées	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
			(000)	\$	kw. hrs.	\$	¢
CANADA .....	1934	1,379,153	1,717,090	36,507,822	1,245	26.47	2.13
	1935	1,401,983	1,769,848	36,773,643	1,262	26.23	2.08
	1936	1,443,059	1,887,116	38,399,102	1,308	26.61	2.03
	1937	1,500,128	2,007,433	39,253,133	1,338	26.17	1.96
	1938	1,559,394	2,172,500	41,302,107	1,393	26.49	1.90
	1939	1,623,672	2,310,891	43,793,482	1,423	26.97	1.90
	1940	1,686,588	2,436,572	46,444,357	1,445	27.54	1.91
	1941	1,755,917	2,582,405	48,683,162	1,471	27.73	1.89
	1942	1,803,708	2,716,895	50,706,757	1,506	28.11	1.87
	1943	1,852,367	2,843,612	51,307,781	1,535	27.70	1.80
Change (Changement) 1934 - 1943							
Amount (Volume)		473,214	1,126,522	14,799,959	290	1.23	- .33
Per cent (p.c.)		34.31	65.61	40.54	23.29	4.65	- 15.49
PRINCE EDWARD ISLAND .....	1934	4,097	1,605	133,843	392	32.67	8.34
	1935	4,199	1,722	134,740	410	32.08	7.82
	1936	4,379	2,035	145,442	465	33.21	7.15
	1937	4,545	2,232	152,660	491	33.59	6.84
	1938	4,799	2,579	150,994	537	31.46	5.85
	1939	5,067	2,908	163,226	574	32.21	5.61
	1940	5,227	3,076	172,643	588	33.03	5.61
	1941	5,531	3,483	183,090	630	33.10	5.26
	1942	5,606	3,580	196,446	639	35.04	5.49
	1943	5,715	3,895	217,914	682	38.13	5.59
Change (Changement) 1934 - 1943							
Amount (Volume)		1,618	2,290	84,071	290	5.46	- 2.75
Per cent (p.c.)		39.49	142.70	62.81	73.97	1.67	- 32.97
NOVA SCOTIA .....	1934	48,852	23,637	1,257,599	484	25.74	5.32
	1935	52,300	25,937	1,330,632	496	25.44	5.13
	1936	54,763	29,212	1,457,054	533	26.61	4.99
	1937	58,165	31,692	1,535,298	545	26.40	4.84
	1938	58,556	35,307	1,595,086	603	27.24	4.52
	1939	62,034	39,084	1,709,507	630	27.56	4.37
	1940	65,790	43,277	1,877,812	658	28.54	4.34
	1941	69,997	48,357	2,065,057	691	29.50	4.27
	1942	72,592	50,877	2,166,648	715	29.85	4.18
	1943	80,244	57,324	2,156,852	714	26.88	3.76
Change (Changement) 1934 - 1943							
Amount (Volume)		31,392	33,687	899,253	230	1.14	- 1.56
Per cent (p.c.)		64.26	142.52	71.51	47.52	4.43	- 29.32
NEW BRUNSWICK .....	1934	35,364	19,607	962,212	554	27.21	4.91
	1935	36,602	20,597	994,895	563	27.18	4.83
	1936	38,660	22,049	1,068,038	570	27.63	4.84
	1937	41,604	23,488	1,117,953	565	26.87	4.76
	1938	43,556	25,567	1,232,937	582	28.31	4.86
	1939	46,485	26,989	1,307,772	581	28.13	4.85
	1940	50,681	29,588	1,413,237	580	27.88	4.81
	1941	52,831	31,234	1,435,015	591	27.16	4.59
	1942	54,529	34,696	1,563,334	636	28.67	4.51
	1943	56,239	35,294	1,661,550	628	29.54	4.71
Change (Changement) 1934 - 1943							
Amount (Volume)		20,875	15,687	699,338	74	2.33	- .20
Per cent (p.c.)		59.03	80.01	72.68	13.36	8.56	- 4.07
QUEBEC .....	1934	378,705	237,322	7,776,391	327	20.53	3.28
	1935	378,388	226,285	7,297,458	598	19.29	3.22
	1936	390,711	241,799	7,723,973	619	19.77	3.19
	1937	407,155	265,405	8,108,946	652	19.92	3.06
	1938	421,178	287,107	8,669,034	682	20.58	3.02
	1939	454,825	311,420	9,167,384	716	21.08	2.94
	1940	451,791	324,032	9,634,398	717	21.32	2.97
	1941	473,547	342,627	10,100,300	724	21.33	2.95
	1942	488,014	368,173	10,785,887	754	22.10	2.93
	1943	507,765	396,305	10,791,660	784	21.25	2.71
Change (Changement) 1934 - 1943							
Amount (Volume)		129,060	160,983	3,015,269	157	.72	- .57
Per cent (p.c.)		34.08	67.85	38.77	25.04	3.51	- 17.38



TABLEAU 2 - SERVICE DOMESTIQUE, 1934 - 1945

Year Année	Number of Customers Nombre d'usagers	Kilowatt Hours Consumed Kilowatt heures consommées	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager	Average Annual Bill Compte moyen de l'année	Revenue per Kilowatt Hour Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	¢
<b>ONTARIO</b> .....						
1934	605,885	980,978	16,811,849	1,619	27.75	1.71
1935	616,111	1,025,929	17,171,434	1,657	27.78	1.68
1936	634,052	1,098,598	17,716,636	1,733	27.94	1.61
1937	660,262	1,174,358	17,718,464	1,779	26.84	1.51
1938	691,438	1,285,568	18,456,575	1,859	26.69	1.44
1939	719,871	1,374,325	19,657,858	1,909	27.31	1.43
1940	745,396	1,459,235	20,928,097	1,958	28.08	1.43
1941	772,153	1,546,189	21,980,031	2,002	28.47	1.42
1942	787,721	1,625,780	22,807,897	2,061	28.95	1.40
1943	801,430	1,682,562	23,000,644	2,099	28.70	1.37
Change (Changement) 1934 - 1943 Amount (Volume) Per cent (p.c.)	195,545 32.27	701,584 71.52	6,188,795 36.81	480 29.65	.95 3.42	- .34 - 19.88
<b>MANITOBA</b> .....						
1934	73,545	282,067	2,782,475	3,835	37.83	0.99
1935	74,538	289,514	2,914,963	3,981	39.11	1.01
1936	75,858	296,110	3,029,140	3,903	39.93	1.02
1937	76,516	303,271	3,122,397	3,963	40.81	1.03
1938	77,762	311,793	3,223,605	4,010	41.45	1.03
1939	81,091	320,827	3,311,662	3,956	40.84	1.03
1940	83,404	330,269	3,423,512	3,960	41.04	1.04
1941	85,106	343,041	3,472,277	4,031	40.80	1.01
1942	87,615	355,928	3,570,492	4,062	40.75	1.00
1943	88,528	374,169	3,712,551	4,226	41.93	.99
Change (Changement) 1934 - 1943 Amount (Volume) Per cent (p.c.)	14,983 20.37	92,102 32.65	929,876 33.42	391 10.20	4.10 10.84	- -
<b>SASKATCHEWAN</b> .....						
1934	44,493	34,906	1,741,371	785	39.14	4.99
1935	45,451	35,402	1,795,683	779	39.51	5.07
1936	46,478	36,044	1,851,794	776	39.84	5.14
1937	46,630	37,234	1,852,503	798	39.73	4.98
1938	48,060	39,077	1,903,731	813	39.61	4.87
1939	49,980	41,198	2,004,433	824	40.10	4.87
1940	51,425	43,406	2,093,205	844	40.70	4.82
1941	52,695	45,448	2,173,255	862	41.24	4.78
1942	54,132	46,858	2,173,896	866	40.16	4.64
1943	55,500	48,996	2,257,885	883	40.68	4.61
Change (Changement) 1934 - 1943 Amount (Volume) Per cent (p.c.)	11,007 24.74	14,090 40.37	516,514 29.66	98 12.48	1.54 3.93	- .58 - 7.62
<b>ALBERTA</b> .....						
1934	58,375	30,378	1,764,295	520	30.22	5.81
1935	58,127	31,636	1,714,128	544	29.49	5.42
1936	59,600	33,481	1,789,422	562	30.02	5.34
1937	61,121	35,339	1,865,520	578	30.52	5.28
1938	63,030	38,089	1,983,226	604	31.46	5.21
1939	68,267	42,210	2,145,093	618	31.42	5.08
1940	69,397	45,110	2,275,091	650	32.78	5.04
1941	72,422	47,572	2,393,189	657	33.05	5.03
1942	74,814	49,089	2,393,073	656	31.99	4.87
1943	77,810	52,100	2,514,031	670	32.31	4.83
Change (Changement) 1934 - 1943 Amount (Volume) Per cent (p.c.)	19,435 33.29	21,722 71.51	749,736 42.49	150 28.85	2.09 3.92	- .98 - 16.87
<b>BRITISH COLUMBIA AND YUKON</b> .....						
1934	129,837	106,590	3,277,787	821	25.25	3.08
1935	134,267	115,026	3,419,710	857	25.47	2.97
1936	138,558	127,788	3,617,603	922	26.11	2.83
1937	144,130	134,414	3,779,392	933	26.22	2.81
1938	150,955	147,613	4,086,919	978	27.07	2.77
1939	156,052	151,930	4,326,747	974	27.73	2.85
1940	163,277	158,781	4,626,562	972	28.34	2.91
1941	171,635	174,454	4,880,948	1,016	28.44	2.80
1942	178,685	182,914	5,049,084	1,024	28.26	2.76
1943	179,136	190,967	4,994,894	1,066	27.88	2.62
Change (Changement) 1934 - 1943 Amount (Volume) Per cent (p.c.)	49,299 37.97	84,377 79.16	1,717,107 52.39	245 29.84	2.63 10.42	- .46 - 14.94



**TABLE 3 - ELECTRIC POWER PLANTS, 1943.**

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total number of generating stations</u> .....	622	9	47	14
Per cent of total for Canada .....	100.00	1.46	7.55	2.25
<u>COMMERCIAL</u> .....	425	7	20	8
Hydraulic .....	211	4	13	5
Fuel .....	214	3	7	3
<u>MUNICIPAL</u> .....	197	2	27	6
Hydraulic .....	111	-	20	3
Fuel .....	86	2	7	3
With water wheels and turbines .....	322	4	33	8
With steam engines only .....	25	-	1	1
With steam turbines only .....	25	1	7	1
With gas or oil engines only .....	245	4	6	3
With both steam engines and turbines .....	3	-	-	1
With both steam and gas or oil engines .....	2	-	-	-
With alternating current dynamos only .....	484	9	47	12
With direct current dynamos only .....	136	-	-	1
With both alternating and direct current dynamos ..	2	-	-	1
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 399	8	20	15
Number generating power .....	293	6	11	7
Number buying power for redistribution .....	106	2	9	8
<u>MUNICIPALITIES</u> .....	X 472	2	23	10
Number generating power .....	83	2	8	2
Number buying power for redistribution .....	389	-	15	8
<u>AUXILIARY PLANTS</u> .....	66	1	9	2
To hydraulic stations .....	45	1	3	-
To non-generating stations .....	21	-	6	2

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.

TABLEAU 3 - USINES GÉNÉRATRICES, 1943.

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
101	136	25	143	76	71	<u>Nombre d'usines génératrices</u>
16.24	21.86	4.02	22.99	12.22	11.41	Pourcentage du total pour le Canada
82	63	15	102	66	62	<u>COMMERCIALES</u>
80	59	5	-	4	41	Hydrauliques
2	4	10	102	62	21	A combustible
19	73	10	41	10	9	<u>MUNICIPALES</u>
16	65	2	-	-	5	Hydrauliques
3	8	8	41	10	4	A combustible
96	124	7	-	4	46	Avec roues et turbines hydrauliques
1	6	3	1	7	5	Avec machines à vapeur seulement
1	-	1	7	4	3	Avec turbines à vapeur seulement
3	5	13	134	60	17	Avec moteurs à gaz ou à pétrole seulement
-	-	-	1	1	-	Avec machines et turbines à vapeur à la fois
-	1	1	-	-	-	Avec machines à vapeur à gaz et à pétrole
100	134	23	53	39	67	Avec dynamos à courant alternatif seulement
1	2	2	90	36	4	Avec dynamos à courant direct seulement
-	-	-	-	1	-	Avec dynamos à courant alternatif et direct
66	63	17	84	68	57	<u>USINES COMMERCIALES</u>
41	38	11	82	56	40	Nombre d'usines génératrices
25	25	6	2	12	17	Nombre d'usines achetant de l'électricité pour la revendre
32	330	11	31	15	17	<u>MUNICIPALITES</u>
13	14	6	23	8	6	Nombre d'usines génératrices
19	316	5	8	7	11	Nombre d'usines achetant de l'électricité pour la revendre
9	9	6	-	8	22	<u>USINES AUXILIAIRES</u>
8	6	2	-	8	17	Aux usines hydrauliques
1	3	4	-	-	5	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.

TABLE 4 - CAPITAL, 1943

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL CAPITAL</b> .....	1,778,224,640	1,514,819	42,448,812	36,191,278	817,443,304
Per cent of total for Canada .....	100.00	.08	2.39	2.04	45.97
Generation .....	1,059,059,773	751,129	24,484,928	23,629,310	591,912,808
Transmission and distribution .....	593,540,358	629,245	15,043,184	11,167,954	170,636,190
General .....	125,624,509	134,445	2,920,700	1,394,014	54,894,306
<b>TOTAL CAPITAL IN COMMERCIAL STATIONS</b> .....	1,149,225,710	1,270,122	21,242,069	23,451,580	796,927,337
Generation .....	795,421,253	600,044	9,578,732	18,710,526	578,148,357
Transmission and distribution .....	276,016,660	574,322	9,140,193	3,872,817	165,218,257
General .....	77,787,797	95,756	2,523,144	868,237	53,560,723
Non-generating stations .....	46,167,009	7,000	9,122,605	1,850,488	576,572
Generating stations .....	1,103,058,701	1,263,122	12,119,464	21,601,092	796,350,765
Hydraulic stations .....	1,076,870,687	124,473	6,570,359	18,205,671	796,261,106
Fuel stations .....	26,188,014	1,138,649	5,549,105	3,395,421	89,659
<b>TOTAL CAPITAL IN MUNICIPAL STATIONS</b> .....	628,998,930	244,697	21,206,743	12,739,698	20,515,967
Generation .....	265,638,520	151,085	14,906,196	4,918,784	13,764,451
Transmission and distribution .....	317,523,698	54,923	5,902,991	7,295,137	5,417,933
General .....	47,836,712	38,689	397,556	525,777	1,333,583
Non-generating stations .....	147,433,130	-	1,933,597	1,489,210	2,976,103
Generating stations .....	481,565,800	244,697	19,273,146	11,250,488	17,539,864
Hydraulic stations .....	450,906,869	-	17,773,108	2,926,057	17,076,826
Fuel stations .....	30,658,931	244,697	1,500,038	8,324,431	463,038
<b>TOTAL CAPITAL IN NON-GENERATING STATIONS</b> .....	193,600,139	7,000	11,056,202	3,339,698	3,552,675
Generation .....	3,759,191	-	2,178,008	148,561	695,782
Transmission and distribution .....	153,295,393	7,000	6,944,929	2,552,257	2,398,961
General .....	36,545,555	-	1,933,265	638,880	457,932
<b>TOTAL CAPITAL IN GENERATING STATIONS</b> .....	1,584,624,501	1,507,819	31,392,610	32,851,580	813,890,629
Generation .....	1,055,300,582	751,129	22,306,920	23,480,749	591,217,026
Transmission and distribution .....	440,244,965	622,245	8,098,255	8,615,697	168,237,229
General .....	89,078,954	134,445	987,435	755,134	54,436,374
Hydraulic stations .....	1,527,777,556	124,473	24,343,467	21,131,728	813,337,932
Fuel stations .....	56,846,945	1,383,346	7,049,143	11,719,852	552,697
<b>TOTAL CAPITAL</b> .....					
Average per H.P. of primary power .....	185	164	239	239	151
Average per H.P. including auxiliary equipment .....	182	162	223	235	150
Average per Kv.A. of dynamo capacity .....	223	218	287	280	179
Average per Kv.A. including auxiliary equipment .....	218	217	267	275	178
<b>GENERATION</b> .....					
Average cost per H.P. (including auxiliary equipment) .....					
In all generating stations .....	109	80	125	155	109
In hydraulic stations .....	110	152	165	179	110
In fuel stations .....	72	76	64	100	92

X - Capital invested in one hydraulic station in Saskatchewan included in Manitoba.



TABLEAU 4 - CAPITAL, 1943,

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
616,576,512 34.68	80,404,259 4.52	27,761,351 1.56	35,322,371 1.99	120,561,934 6.78	<u>TOTAL CAPITAL</u>
282,744,787	43,264,767	13,545,796	16,671,478	62,054,770	Pourcentage du total pour le Canada
287,527,367	31,720,494	12,373,736	16,788,285	47,653,903	Génération
46,304,358	5,418,998	1,841,819	1,862,608	10,853,261	Transmission et distribution
					Généralités
107,342,681 77,761,088 22,784,200 6,797,393	40,438,734 29,360,670 10,236,228 841,836	12,899,778 6,075,639 5,731,945 1,092,194	27,221,079 13,830,903 12,125,527 1,264,649	118,432,330 61,355,294 46,333,171 10,743,865	<u>TOTAL CAPITAL DANS LES USINES COMMERCIALES</u>
					Génération
					Transmission et distribution
					Généralités
2,980,757 104,361,924 104,354,472 27,452	1,576,303 38,862,431 38,496,635 365,796	1,767,064 11,132,714 - 11,132,714	127,481 27,093,598 23,384,379 3,709,219	28,158,739 90,273,591 89,493,592 779,999	Usines non-génératrices
					Usines génératrices
					Usines hydrauliques
					Usines à combustible
509,233,831 204,983,699 264,743,167 39,506,965	39,965,525 13,904,097 21,484,266 4,577,162	14,861,573 7,470,157 6,641,791 749,625	8,101,292 2,840,575 4,662,758 597,959	2,129,604 699,476 1,320,732 109,396	<u>TOTAL CAPITAL DANS LES USINES MUNICIPALES</u>
					Génération
					Transmission et distribution
					Généralités
127,616,657 381,617,174 381,415,008 202,166	8,665,359 31,300,166 30,778,943 521,223	1,477,846 13,383,727 - 13,383,727	2,188,416 5,912,876 - 5,912,876	1,085,942 1,043,662 936,927 106,735	Usines non-génératrices
					Usines génératrices
					Usines hydrauliques
					Usines à combustible
130,597,414 129,647 103,954,324 26,513,443	10,241,662 392,037 7,924,975 1,924,650	3,244,910 - 2,986,204 258,706	2,315,897 - 2,096,807 219,090	29,244,681 215,156 24,429,936 4,599,589	<u>TOTAL CAPITAL DANS LES USINES NON-GENERATRICES</u>
					Génération
					Transmission et distribution
					Généralités
485,979,098 282,615,140 183,573,043 19,790,915 485,749,480 229,618	70,162,597 42,872,730 23,795,519 3,494,348 69,275,578 887,019	24,516,441 13,545,796 9,387,532 1,583,113 - 24,516,441	33,006,474 16,671,478 14,691,478 1,643,518 23,384,379 9,622,095	91,317,253 61,859,614 23,223,967 6,253,672 90,430,519 886,734	<u>TOTAL CAPITAL DANS LES USINES GENERATRICES</u>
					Génération
					Transmission et distribution
					Généralités
					Usines hydrauliques
					Usines à combustible
					<u>TOTAL CAPITAL</u>
262	157	165	199	185	Moyenne par H.P. de la machinerie d'énergie primaire
258	148	165	180	171	Moyenne par H.P. y compris machinerie auxiliaire
325	196	195	241	228	Moyenne par Kv.A. de la capacité des dynamos
320	182	194	217	211	Moyenne par Kv.A. y compris machinerie auxiliaire
					<u>GENERATION</u>
					<u>Moyenne par H.P. y compris machinerie auxiliaire</u>
118	80	80	85	86	Dans les usines génératrices
118	79	-	115	89	Dans les usines hydrauliques
123	120	80	47	54	Dans les usines à combustible

X - Capital engagé dans une usine hydraulique de la Saskatchewan inclus sous Manitoba.

TABLE 5 - REVENUE, 1943 (1)

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	204,801,508	512,404	7,945,747	4,975,411	79,172,591
For domestic service .....	51,307,781	217,914	2,156,852	1,661,550	10,791,660
For commercial light .....	28,146,506	127,294	1,596,975	806,567	7,908,256
For power (small) .....	11,176,596	41,829	765,349	303,327	2,314,416
For power (large) .....	109,442,432	105,753	3,227,390	2,063,543	56,972,793
For street lighting .....	4,728,193	19,614	199,181	140,424	1,185,466
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	124,730,993	357,233	5,522,402	2,678,603	76,805,879
Non-generating .....	9,092,162	1,464	2,305,870	503,914	143,372
Generating .....	115,638,831	355,769	3,216,532	2,174,689	76,662,507
Hydraulic .....	109,015,382	17,815	1,183,594	1,521,848	76,623,598
Fuel .....	6,623,449	337,954	2,032,938	652,841	38,909
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	80,070,515	155,171	2,423,345	2,296,808	2,366,712
Non-generating .....	20,491,589	-	359,714	529,041	644,103
Generating .....	59,578,926	155,171	2,063,631	1,767,767	1,722,609
Hydraulic .....	51,026,385	-	1,694,561	84,069	1,620,815
Fuel .....	8,552,541	155,171	369,070	1,683,698	101,794
Revenue of non-generating stations .....	29,583,751	1,464	2,665,584	1,032,955	787,475
Revenue of generating stations .....	175,217,757	510,940	5,280,163	3,942,456	78,385,116
Revenue of hydraulic stations .....	160,041,767	17,815	2,878,155	1,605,917	78,244,413
Revenue of fuel stations .....	15,175,990	493,125	2,402,008	2,336,539	140,703
Average revenue per H.P. of primary power .....	21.33	55.61	44.87	32.90	14.66
Average revenue per H.P. in main and auxiliary plants .....	20.90	54.80	41.67	32.51	14.51
Average revenue per Kv.A. of dynamo capacity .....	25.66	73.78	53.56	38.49	17.25
Average revenue per Kv.A. in main and auxiliary plants .....	25.14	73.27	49.94	37.89	17.12
Average revenue per kilowatt hour consumed .....	.51	3.51	1.37	.97	.34
Average revenue per domestic service customer .....	27.70	38.13	26.89	29.54	21.25
Average revenue per commercial light customer .....	108.40	109.26	143.81	116.43	109.48
Average revenue per small power customer .....	248.66	406.10	317.96	284.81	215.47
Average revenue per large power customer .....	11,199.59	10,575.30	16,636.03	8,743.83	40,899.35
Average revenue per kilowatt hour - domestic and farm service .....	1.80	5.59	3.76	4.71	2.71
Average revenue per kilowatt hour - commercial light .....	2.23	4.61	3.87	3.14	2.56

/ - Affected by power purchased from other province.

X - Adjusted for power purchased from Quebec plants.

(1) - Gross revenue less cost of power interchanged between stations.

TABEAU 5- RECETTES, 1943 (1)

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
83,564,113	10,470,325	6,408,515	8,251,490	18,382,090	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
23,000,644	3,712,351	2,257,885	2,514,051	4,994,894	Pour éclairage domestique
8,335,530	1,892,808	1,852,594	2,077,027	3,549,655	Pour éclairage commercial
4,514,279	402,153	836,839	1,034,328	964,076	Pour force motrice (petite)
45,747,302	4,218,102	1,166,569	2,343,854	8,478,304	Pour force motrice (grosse)
1,966,558	244,911	294,628	282,250	395,161	Pour éclairage des rues
14,028,992	5,600,406	2,410,184	4,085,519	17,390,782	<u>RECETTES DES USINES COMMERCIALES</u>
5,702,432	249,606	188,076	92,296	4,970,297	Non-génératrices
10,326,560	5,350,800	2,222,108	3,993,223	12,420,465	Génératrices
10,312,103	5,262,935	-	3,111,168	12,066,143	Hydrauliques
14,457	87,865	2,222,108	882,055	354,322	A combustible
69,535,121	4,869,919	3,998,331	4,165,971	991,328	<u>RECETTES DES USINES MUNICIPALES</u>
14,939,261	1,170,008	817,457	1,492,704	584,131	Non-génératrices
54,595,860	3,699,911	3,180,874	2,673,267	407,197	Génératrices
54,511,576	3,505,975	-	-	296,950	Hydrauliques
84,484	193,936	3,180,874	2,673,267	110,247	A combustible
18,641,693	1,419,614	1,005,533	1,585,000	5,554,428	Recettes des usines non-génératrices
64,922,420	9,050,711	5,402,982	6,666,490	12,827,662	Recettes des usines génératrices
64,823,479	8,768,910	-	3,111,168	12,363,093	Recettes des usines hydrauliques
98,941	281,801	5,402,982	3,555,322	464,569	Recettes des usines à combustible
X 25.99	20.42	38.00	46.31	28.14	Moyenne de recettes par H.P. de machinerie primaire
X 25.71	19.25	38.00	41.84	26.12	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
X 30.51	25.47	44.93	56.20	34.77	Moyenne de recettes par Kv.A. de capacité de dynamos
X 30.14	23.79	44.93	50.45	32.30	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
.54	.47	2.76	1.59	.70	Moyenne de recettes par Kw. heure ..... (cents)
28.70	41.93	40.68	32.31	27.88	Moyenne de recettes par abonnés d'éclairage domestique
92.52	105.63	119.72	122.38	129.13	Moyenne de recettes par abonnés d'éclairage commercial
317.59	115.13	295.91	184.24	215.05	Moyenne de recettes par abonnés pour petite force motrice
X 14,322.89	12,240.57	9,258.48	6,072.17	10,772.94	Moyenne de recettes par abonnés pour grosse force motrice
1.37	.99	4.61	4.83	2.62	Moyenne de recettes par Kw. heure-service domestique et de ferme ..... (cents)
1.45	1.93	4.38	4.03	3.04	Moyenne de recettes par Kw. heure - service commercial (cents)

/ - Affecté par énergie achetée d'une autre province.

X - Adjusté pour achats de courant des usines du Québec.

(1) - Revenu brut moins le coût de l'énergie échangée entre stations.



TABLE 6 - EXPENSES, 1943

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<b>TOTAL EXPENSES</b> .....	135,555,469	263,532	7,551,549	2,653,495	37,059,755
Per cent of total for Canada .....	100.00	.19	5.57	1.96	27.34
Salaries and wages .....	35,785,932	85,925	1,484,620	823,275	9,644,150
Fuel .....	3,968,211	111,384	1,000,431	488,017	86,937
Taxes (x) .....	28,483,424	64,537	2,034,162	318,689	17,032,083
Cost of power .....	67,317,902	1,686	3,032,336	1,023,314	10,296,585
<b>TOTAL FOR COMMERCIAL STATIONS</b> .....	72,579,621	218,167	6,182,929	1,416,044	36,113,500
Salaries and wages .....	17,696,940	71,740	1,113,092	368,518	9,222,966
Fuel .....	2,217,676	80,204	882,910	188,029	8,171
Taxes .....	27,372,799	64,537	1,993,177	318,580	17,010,965
Cost of power .....	25,292,206	1,686	2,193,750	540,917	9,871,398
Non-generating stations .....	15,682,822	1,826	3,778,821	847,921	83,556
Generating stations .....	56,896,799	216,341	2,404,108	568,123	36,029,944
Hydraulic stations .....	52,555,106	6,061	663,362	186,321	36,009,390
Fuel stations .....	4,341,693	210,280	1,740,746	381,802	20,554
<b>TOTAL FOR MUNICIPAL STATIONS</b> .....	62,975,848	45,365	1,368,620	1,237,251	946,255
Salaries and wages .....	18,088,992	14,185	371,528	454,757	421,184
Fuel .....	1,750,535	31,180	117,521	299,988	78,766
Taxes .....	1,110,625	-	40,985	109	21,118
Cost of power .....	42,025,696	-	838,586	482,397	425,187
Non-generating stations .....	38,371,973	-	774,322	540,320	523,864
Generating stations .....	24,603,875	45,365	594,298	696,931	422,391
Hydraulic stations .....	21,122,610	-	207,250	24,861	364,193
Fuel stations .....	3,481,265	45,365	367,048	672,070	58,198
<b>TOTAL EXPENSES FOR NON-GENERATING STATIONS</b> .....	54,054,795	1,826	4,553,143	1,388,241	607,420
Salaries and wages .....	9,845,783	60	740,373	265,962	182,679
Fuel .....	140,897	-	100,146	-	39,764
Taxes .....	4,014,637	80	1,469,511	169,523	1,967
Cost of power .....	40,053,478	1,686	2,243,113	952,756	383,010
<b>TOTAL EXPENSES FOR GENERATING STATIONS</b> .....	81,500,674	261,706	2,998,406	1,265,054	36,452,335
Salaries and wages .....	25,940,149	85,865	744,247	557,313	9,461,471
Fuel .....	3,827,314	111,384	900,285	488,017	47,173
Taxes .....	24,468,787	64,457	564,651	149,166	17,030,116
Cost of power .....	27,264,424	-	789,223	70,558	9,915,575
Hydraulic stations .....	73,677,716	6,061	870,612	211,182	36,373,583
Fuel stations .....	7,822,958	255,645	2,127,794	1,053,872	78,752

(x) Sales tax not included (See pages 8 and 9).

Includes only the four items listed.

TABLEAU C - DEPENSES, 1943

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
64,004,798	3,306,062	3,566,479	3,451,544	13,698,455	<u>TOTAL DES DEPENSES</u>
47.22	2.44	2.63	2.55	10.10	Pourcentage du total pour le Canada
15,856,423	2,241,091	1,082,771	1,235,536	3,332,141	Salaires et gages
18,922	105,145	1,218,609	487,608	451,158	Combustible
3,051,816	218,036	458,458	775,601	4,530,042	Taxes (x)
45,077,637	741,790	806,641	952,799	5,385,114	Achat d'énergie électrique
11,038,085	1,457,895	1,395,697	1,551,736	13,205,568	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,815,839	872,273	422,422	640,195	3,169,895	Salaires et gages
4,484	30,723	416,087	176,086	430,982	Combustible
2,272,285	127,519	402,395	653,308	4,530,033	Taxes
6,945,477	427,380	154,793	82,147	5,074,658	Achat d'énergie électrique
3,585,793	458,278	120,653	41,418	6,764,556	Usines non-génératrices
7,452,292	999,617	1,275,044	1,510,318	6,441,012	Usines génératrices
7,443,841	943,899	-	1,062,943	6,239,289	Usines hydrauliques
8,451	55,718	1,275,044	447,375	201,723	Usines à combustible
52,966,713	1,848,167	2,170,782	1,899,808	492,887	<u>TOTAL POUR LES USINES MUNICIPALES</u>
14,040,584	1,368,818	660,349	595,341	162,246	Salaires et gages
14,438	74,422	802,522	311,522	20,176	Combustible
779,531	90,517	56,063	122,293	9	Taxes
38,132,160	314,410	651,848	870,652	310,456	Achat d'énergie électrique
33,543,569	649,987	764,778	1,176,005	399,128	Usines non-génératrices
19,423,144	1,198,180	1,406,004	723,803	93,759	Usines génératrices
19,395,991	1,069,559	-	-	60,756	Usines hydrauliques
27,153	128,621	1,406,004	723,803	33,003	Usines à combustible
37,129,362	1,108,265	885,431	1,217,423	7,163,684	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
6,495,413	371,347	123,651	226,522	1,439,776	Salaires et gages
-	-	-	-	987	Combustible
551,820	14,040	59,252	98,795	1,649,649	Taxes
30,082,129	722,878	702,528	892,106	4,073,272	Achat d'énergie électrique
26,875,456	2,197,797	2,681,048	2,234,121	6,534,771	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
9,361,010	1,869,744	959,120	1,009,014	1,892,365	Salaires et gages
18,922	105,145	1,218,609	487,608	450,171	Combustible
2,499,996	203,996	399,206	676,806	2,680,393	Taxes
14,995,508	18,912	104,113	60,693	1,311,842	Achat d'énergie électrique
26,839,832	2,013,458	-	1,062,943	6,300,045	Usines hydrauliques
35,604	184,339	2,681,048	1,171,178	234,726	Usines à combustible

Ne comprend que les quatre item énumérés.

(x) Taxe des ventes non comprises (Voir p. 8 et 3).

TABLE 7 - EMPLOYEES, 1943

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	19,120	70	1,018	594	5,379
Per cent of total for Canada .....	100.00	.36	5.32	3.11	28.13
Officers, clerks, other salaried employees, etc. ..	7,968	43	386	291	1,853
Employees on wages .....	11,152	27	632	303	3,526
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	9,855	56	691	253	5,098
Officers, clerks, other salaried employees, etc. ..	3,610	29	211	102	1,708
Employees on wages .....	6,245	27	480	151	3,390
Non-generating .....	1,276	1	372	107	26
Generating .....	8,579	55	319	146	5,072
Hydraulic .....	7,818	7	168	72	5,061
Fuel .....	761	48	151	74	11
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	9,265	14	327	341	281
Officers, clerks, other salaried employees, etc. ..	4,358	14	175	189	145
Employees on wages .....	4,907	-	152	152	136
Non-generating .....	4,008	-	82	93	99
Generating .....	5,257	14	245	248	182
Hydraulic .....	4,342	-	169	12	166
Fuel .....	915	14	76	236	16
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	5,284	1	454	200	125
Officers, clerks, other salaried employees, etc. ..	2,862	1	209	125	67
Employees on wages .....	2,422	-	245	75	58
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	13,836	69	564	394	5,254
Officers, clerks, other salaried employees, etc. ..	5,106	42	177	166	1,786
Employees on wages .....	8,730	27	387	228	3,468
Hydraulic .....	12,160	7	337	84	5,227
Fuel .....	1,676	62	227	310	27



TABLEAU 7 - EMPLOYEES, 1943

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
7,659	1,361	640	684	1,715	<u>TOTAL DU PERSONNEL OCCUPE</u>
40.06	7.12	3.35	3.58	8.97	Pourcentage du total pour le Canada
3,100	945	270	308	772	Administrateurs, directeurs, commis et tous employés des bureaux
4,559	416	370	376	943	Ouvriers et journaliers
1,023	507	273	347	1,607	<u>PERSONNEL DES USINES COMMERCIALES</u>
261	288	123	166	722	Administrateurs, directeurs, commis et tous employés des bureaux
762	219	150	181	885	Ouvriers et journaliers
37	11	13	8	701	Non-génératrices
986	496	260	339	906	Génératrices
981	477	-	211	841	Hydrauliques
5	19	260	128	65	Combustible
6,636	854	367	337	108	<u>PERSONNEL DES USINES MUNICIPALES</u>
2,839	657	147	142	50	Administrateurs, directeurs, commis et tous employés des bureaux
3,797	197	220	195	58	Ouvriers et journaliers
3,227	258	58	150	61	Non-génératrices
3,409	596	309	207	47	Génératrices
3,398	559	-	-	38	Hydrauliques
11	37	309	207	9	Combustible
3,264	269	71	138	762	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,719	170	42	90	439	Administrateurs, directeurs, commis et tous employés des bureaux
1,545	99	29	48	323	Ouvriers et journaliers
4,395	1,092	569	546	953	<u>PERSONNEL DES USINES GENERATRICES</u>
1,381	775	228	218	333	Administrateurs, directeurs, commis et tous employés des bureaux
3,014	317	341	328	620	Ouvriers et journaliers
4,379	1,036	-	211	879	Hydrauliques
16	56	569	335	74	Combustible.

TABLE 8 - NUMBER OF CUSTOMERS, 1943

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>NUMBER OF CUSTOMERS</u> .....	2,169,148	7,004	94,025	64,510	593,202
Per cent of total for Canada .....	100.00	.32	4.33	2.97	27.35
Domestic service .....	1,852,367	5,715	80,244	56,239	507,765
Commercial light .....	259,640	1,165	11,104	6,927	72,495
Power (small) .....	44,948	103	2,407	1,065	10,741
Power (large) .....	9,772	10	194	236	1,393
Street lighting .....	2,421	11	76	43	808
<u>COMMERCIAL STATIONS</u> .....	1,009,603	5,647	65,511	26,759	546,903
Domestic service .....	847,253	4,608	56,134	22,289	466,754
Commercial light .....	135,320	948	7,559	3,706	68,197
Power (small) .....	21,368	73	1,676	662	9,895
Power (large) .....	4,231	9	98	81	1,285
Street lighting .....	1,431	9	44	21	772
Non-generating .....	225,077	111	52,064	16,388	4,191
Generating .....	784,526	5,536	13,447	10,371	542,712
Hydraulic .....	724,476	351	9,779	2,075	542,202
Fuel .....	60,050	5,185	3,668	8,296	510
<u>MUNICIPAL STATIONS</u> .....	1,159,545	1,357	28,514	37,751	46,299
Domestic service .....	1,005,114	1,107	24,110	33,950	41,011
Commercial light .....	124,320	217	3,545	3,221	4,298
Power (small) .....	23,580	30	731	403	846
Power (large) .....	5,541	1	96	155	108
Street lighting .....	990	2	32	22	36
Non-generating .....	814,799	-	16,087	15,628	21,714
Generating .....	344,746	1,357	12,427	22,123	24,585
Hydraulic .....	243,973	-	6,553	1,755	23,350
Fuel .....	100,773	1,357	5,874	20,368	1,235
<u>NON-GENERATING STATIONS</u> .....	1,039,876	111	68,151	32,016	25,905
Domestic service .....	889,315	74	58,125	27,545	22,756
Commercial light .....	125,048	36	8,042	3,839	2,555
Power (small) .....	21,494	-	1,840	462	510
Power (large) .....	3,310	-	106	149	35
Street lighting .....	709	1	38	21	49
<u>GENERATING STATIONS</u> .....	1,129,272	6,893	25,874	32,494	567,297
Hydraulic stations .....	968,449	351	16,332	3,830	565,552
Domestic service .....	835,993	271	13,954	3,205	483,668
Commercial light .....	107,233	77	1,927	522	69,566
Power (small) .....	18,030	2	366	73	10,209
Power (large) .....	5,937	1	58	25	1,356
Street lighting .....	1,256	-	27	5	753
Fuel stations .....	160,823	6,542	9,542	28,664	1,745
Domestic service .....	127,059	5,370	8,165	25,469	1,341
Commercial .....	27,359	1,052	1,135	2,566	374
Power (small) .....	5,424	101	201	530	22
Power (large) .....	525	9	30	62	2
Street lighting .....	456	10	11	17	6

Average number of domestic service customers per 100 of population .....	15.68	6.28	13.22	12.15	14.69
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TABEAU 8 - NOMBRE D'USAGERS, 1943

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
909,546	113,571	74,272	100,991	212,027	<u>NOMBRE D'USAGERS</u>
41.93	5.24	3.42	4.66	9.78	Pourcentage du total pour le Canada
801,430	88,528	55,500	77,810	179,136	Service domestique
90,097	17,918	15,474	16,971	27,489	Eclairage commercial
14,214	3,493	2,828	5,614	4,483	Force motrice (petite)
3,194	3,446	126	386	787	Force motrice (grosse)
611	186	344	210	132	Eclairage des rues
77,392	34,584	27,640	34,589	190,578	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
66,422	25,536	20,186	24,128	161,196	Service domestique
9,395	7,003	6,078	7,812	24,622	Eclairage commercial
1,113	497	1,141	2,362	3,959	Force motrice (petite)
385	1,538	56	93	686	Force motrice (grosse)
77	20	179	194	115	Eclairage des rues
5,892	8,280	3,020	2,487	132,644	Non-génératrices
71,500	26,304	24,620	32,102	57,934	Génératrices
71,161	24,878	-	18,620	55,410	Hydrauliques
339	1,426	24,620	13,482	2,524	Combustible
832,154	78,987	46,632	66,402	21,449	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
735,008	62,992	35,314	53,682	17,940	Service domestique
80,702	10,915	9,396	9,159	2,867	Eclairage commercial
13,101	3,006	1,687	3,252	524	Force motrice (petite)
2,809	1,908	70	293	101	Force motrice (grosse)
534	166	165	16	17	Eclairage des rues
676,236	22,388	16,118	30,596	16,032	Non-génératrices
155,918	56,599	30,514	35,806	5,417	Génératrices
154,611	53,244	-	-	4,460	Hydrauliques
1,307	3,355	30,514	35,806	957	Combustible
682,128	30,668	19,138	33,083	148,676	<u>NOMBRE D'USAGERS DES USINES NON-GÉNÉRATRICES</u>
588,658	24,170	14,441	26,999	126,547	Service domestique
78,803	5,156	3,638	4,220	18,759	Eclairage commercial
12,126	950	965	1,787	2,854	Force motrice (petite)
2,220	233	36	63	468	Force motrice (grosse)
321	159	58	14	48	Eclairage des rues
227,418	82,903	55,134	67,908	63,351	<u>NOMBRE D'USAGERS DES USINES GÉNÉRATRICES</u>
225,772	78,122	-	18,620	59,870	<u>Usines hydrauliques</u>
211,390	60,768	-	12,646	50,091	Service domestique
11,129	11,827	-	4,296	7,889	Eclairage commercial
1,995	2,356	-	1,516	1,513	Force motrice (petite)
972	3,161	-	55	309	Force motrice (grosse)
286	10	-	107	68	Eclairage des rues
1,646	4,781	55,134	49,288	3,481	<u>Usines à combustible</u>
1,382	3,590	41,059	38,165	2,498	Service domestique
165	935	11,836	8,455	841	Eclairage commercial
93	187	1,863	2,311	116	Force motrice (petite)
2	52	90	268	10	Force motrice (grosse)
4	17	286	89	16	Eclairage des rues
20.46	12.19	6.59	9.82	19.54	Moyenne de consommateurs d'éclairage électrique par 100 habitants



TABLE 9 - POLE LINE MILEAGE, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
POLE LINE MILEAGE .....	78,063	305	4,281	3,239	14,608
Per cent of total for Canada .....	100.00	.39	5.49	4.15	18.72
Miles of steel towers .....	5,389	-	21	243	1,392
Miles of steel poles .....	302	-	1	-	235
Miles of wooden poles .....	69,749	302	4,246	2,994	12,219
Miles of concrete poles .....	553	-	-	-	-
Miles of underground and submarine cables .....	2,070	3	13	2	762
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	32,085	281	2,104	709	14,009
Non-generating .....	5,529	10	961	251	277
Generating .....	26,556	271	1,143	458	13,732
Hydraulic .....	23,773	24	975	256	13,719
Fuel .....	2,783	247	168	202	13
<u>POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	45,978	24	2,177	2,530	599
Non-generating .....	10,824	-	428	181	172
Generating .....	35,154	24	1,749	2,349	427
Hydraulic .....	29,739	-	1,291	29	400
Fuel .....	5,415	24	458	2,320	27
<u>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</u> .....	16,353	10	1,389	432	449
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	61,710	295	2,892	2,807	14,159
Hydraulic .....	53,512	24	2,266	285	14,119
Fuel .....	8,198	271	626	2,522	40

TABLE 10 - AUXILIARY PLANT EQUIPMENT, 1945

<u>TOTAL PRIMARY POWER</u> .....	H.P.	194,822	135	12,804	2,725	37,311
Per cent of total for Canada .....		100.00	.07	6.57	1.40	19.15
Steam reciprocating engines .....	No.	26	1	6	2	1
Total capacity .....	H.P.	11,253	75	3,040	800	60
Steam turbines .....	No.	44	-	3	3	8
Total capacity .....	H.P.	172,104	-	7,390	1,925	36,224
Gas and oil engines .....	No.	55	1	10	-	5
Total capacity .....	H.P.	11,465	60	2,374	-	1,027
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	166,010	48	10,738	2,035	35,894
<u>COMMERCIAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	131,161	135	12,564	2,725	25,675
Steam reciprocating engines .....	No.	19	1	6	2	1
Total capacity .....	H.P.	7,378	75	3,040	800	60
Steam turbines .....	No.	35	-	3	3	6
Total capacity .....	H.P.	115,240	-	7,590	1,925	25,500
Gas and oil engines .....	No.	40	1	7	-	3
Total capacity .....	H.P.	8,543	60	2,134	-	115
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	110,243	48	10,553	2,035	23,125
<u>MUNICIPAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	63,661	-	240	-	11,636
Steam reciprocating engines .....	No.	7	-	-	-	-
Total capacity .....	H.P.	3,875	-	-	-	-
Steam turbines .....	No.	9	-	-	-	2
Total capacity .....	H.P.	56,864	-	-	-	10,724
Gas and oil engines .....	No.	15	-	3	-	2
Total capacity .....	H.P.	2,922	-	240	-	912
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	55,767	-	185	-	10,769

TABLEAU 9 - LONGUEUR (EN MILES) DES LIGNES SUR POTEAUX, 1943

Ontario	Manitoba	Saskat-	Alberta	British Columbia and Yukon	
56,876	4,359	4,001	4,326	6,068	<u>LONGUEUR (EN MILES) DES LIGNES SUR POTEAUX</u>
47.24	5.58	5.13	5.54	7.76	Pourcentage du total pour tout le Canada
2,919	745	-	31	40	Milles de pylones d'acier
66	-	-	-	-	Milles de poteaux d'acier
52,290	3,581	3,976	4,219	5,922	Milles de poteaux de bois
553	-	-	-	-	Milles de poteaux de ciment
1,048	35	25	76	106	Milles de cables souterrains et sous-marins
2,757	1,428	1,771	3,430	5,596	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES COMMERCIALES</u>
221	215	656	52	2,886	Non-génératrices
2,536	1,213	1,115	3,378	2,710	Génératrices
2,522	1,142	-	2,501	2,634	Hydrauliques
14	71	1,115	877	76	A combustible
54,119	2,931	2,230	896	472	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES MUNICIPALES</u>
7,074	2,026	207	421	315	Non-génératrices
27,045	905	2,023	475	157	Génératrices
27,016	865	-	-	138	Hydrauliques
29	40	2,023	475	19	A combustible
7,295	2,241	863	473	3,201	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
29,581	2,118	3,138	3,855	2,867	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES GENERATRICES</u>
29,558	2,007	-	2,501	2,772	Hydrauliques
43	111	3,138	1,352	95	A combustible

TABLEAU 10 - OUTILLAGE AUXILIAIRE, 1943

41,260	31,090	-	18,963	50,534	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
21.18	15.96	-	9.75	25.94	Pourcentage du total pour tout le Canada
4	1	-	7	4	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,600	1,750	-	2,753	1,175	Capacité totale ..... H.P.
4	7	-	4	15	Turbines à vapeur ..... Nomb.
58,000	28,490	-	15,000	45,075	Capacité totale ..... H.P.
5	7	-	7	20	Moteurs à gaz et à pétrole ..... Nomb.
1,660	850	-	1,210	4,284	Capacité totale ..... H.P.
53,497	28,711	-	16,662	40,425	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
					<u>USINES COMMERCIALES</u>
10,160	12,000	-	18,963	48,939	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
-	-	-	7	2	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	-	2,753	650	Capacité totale ..... H.P.
2	3	-	4	14	Turbines à vapeur ..... Nomb.
8,500	12,000	-	15,000	44,925	Capacité totale ..... H.P.
5	-	-	7	17	Moteurs à gaz et à pétrole ..... Nomb.
1,660	-	-	1,210	3,364	Capacité totale ..... H.P.
7,282	11,250	-	16,662	39,288	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
					<u>USINES MUNICIPALES</u>
51,100	19,090	-	-	1,595	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
4	1	-	-	2	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,600	1,750	-	-	525	Capacité totale ..... H.P.
2	4	-	-	1	Turbines à vapeur ..... Nomb.
29,500	16,490	-	-	150	Capacité totale ..... H.P.
-	7	-	-	3	Moteurs à gaz et à pétrole ..... Nomb.
-	850	-	-	920	Capacité totale ..... H.P.
26,215	17,461	-	-	1,137	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.

TABLE 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1943

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL PRIMARY POWER</u> ..... H.P.	9,797,616	9,350	190,684	153,975	5,437,688
Per cent of total for Canada .....	100.00	.10	1.95	1.57	55.50
Water wheels and turbines ..... No.	365	6	58	17	293
Total capacity ..... H.P.	9,205,169	363	108,215	107,010	5,397,362
Steam reciprocating engines ..... No.	62	1	7	7	3
Total capacity ..... H.P.	20,303	75	3,540	3,980	165
Steam turbines ..... No.	118	4	17	10	9
Total capacity ..... H.P.	517,675	6,080	75,826	42,005	36,374
Gas and oil engines ..... No.	539	13	22	6	13
Total capacity ..... H.P.	54,469	2,232	3,103	980	3,787
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	8,148,037	6,993	159,083	131,297	4,606,675
Per cent of total for Canada .....	100.00	.09	1.95	1.61	56.54
Dynamos, A.C. .... No.	1,325	21	101	37	311
Total capacity ..... Kv.A.	8,142,029	6,993	158,783	130,447	4,606,655
Dynamos, D.C. .... No.	226	-	1	2	1
Total capacity ..... Kw.	6,008	-	300	850	20
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	7,371,097	7,395	102,089	114,355	5,344,307
Water wheels and turbines ..... No.	575	6	19	11	263
Total capacity ..... H.P.	7,069,774	363	26,170	94,150	5,318,302
Steam reciprocating engines ..... No.	38	1	7	7	1
Total capacity ..... H.P.	12,575	75	3,540	3,980	60
Steam turbines ..... No.	73	4	14	6	7
Total capacity ..... H.P.	258,030	6,680	70,245	15,625	25,650
Gas and oil engines ..... No.	386	6	7	2	5
Total capacity ..... H.P.	30,718	277	2,134	600	295
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	6,185,138	5,377	86,129	97,216	4,524,934
Dynamos, A.C. .... No.	857	14	44	23	270
Total capacity ..... Kv.A.	6,180,907	5,377	85,829	96,366	4,524,914
Dynamos, D.C. .... No.	187	-	1	2	1
Total capacity ..... Kw.	4,231	-	300	850	20
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	2,426,519	1,955	88,595	39,620	93,381
Water wheels and turbines ..... No.	290	-	39	6	30
Total capacity ..... H.P.	2,135,395	-	82,045	12,860	79,060
Steam reciprocating engines ..... No.	24	-	-	-	2
Total capacity ..... H.P.	7,728	-	-	-	105
Steam turbines ..... No.	45	-	3	4	2
Total capacity ..... H.P.	259,645	-	5,581	26,380	10,724
Gas and oil engines ..... No.	153	7	15	4	8
Total capacity ..... H.P.	23,751	1,955	969	380	3,492
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	1,962,899	1,616	72,954	34,081	81,741
Dynamos, A.C. .... No.	468	7	57	14	41
Total capacity ..... Kv.A.	1,961,122	1,616	72,954	34,081	81,741
Dynamos, D.C. .... No.	39	-	-	-	-
Total capacity ..... Kw.	1,777	-	-	-	-



TABLÉAU 11 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1943

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,393,457	543,807	168,668	196,329	703,658	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H.P.
24.42	5.56	1.72	2.00	7.18	Pourcentage du total pour le Canada
355	43	-	9	84	Turbines et roues hydrauliques ..... Nomb.
2,550,882	508,300	-	91,000	642,037	Capacité totale ..... H.P.
11	6	1	17	9	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,870	2,568	750	5,711	1,644	Capacité totale ..... H.P.
4	9	26	19	20	Turbines à vapeur ..... Nomb.
38,000	29,740	144,310	92,325	52,415	Capacité totale ..... H.P.
14	37	251	128	55	Moteurs à gaz et à pétrole ..... Nomb.
2,705	3,199	23,608	7,293	7,562	Capacité totale ..... H.P.
1,929,442	440,009	142,620	162,797	569,121	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
23.68	5.40	1.75	2.00	6.98	Pourcentage du total pour le Canada
376	90	135	95	159	Dynamos, C.A. .... Nomb.
1,929,397	439,982	140,890	159,923	568,959	Capacité totale ..... Kv.A.
2	4	142	68	6	Dynamos, C.D. .... Nomb.
45	27	1,730	2,874	162	Capacité totale ..... Kw.
564,622	366,644	58,969	121,441	691,275	<u>USINES COMMERCIALES</u>
169	23	-	9	75	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
554,222	353,300	-	91,000	632,267	Turbines et roues hydrauliques ..... Nomb.
3	1	-	13	5	Capacité totale ..... H.P.
85	20	-	3,751	1,064	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	3	12	6	19	Capacité totale ..... H.P.
8,500	12,000	46,765	20,300	52,265	Turbines à vapeur ..... Nomb.
8	20	176	115	47	Capacité totale ..... H.P.
1,815	1,324	12,204	6,390	5,679	Moteurs à gaz et à pétrole ..... Nomb.
474,493	290,407	48,577	97,706	560,299	Capacité totale ..... H.P.
177	45	72	72	140	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
474,483	290,401	47,363	96,017	560,157	Dynamos, C.A. .... Nomb.
1	1	112	64	5	Capacité totale ..... Kv.A.
10	6	1,214	1,689	142	Dynamos, C.D. .... Nomb.
1,828,835	177,163	109,699	74,888	12,383	Capacité totale ..... Kw.
186	20	-	-	9	<u>USINES MUNICIPALES</u>
1,796,660	155,000	-	-	9,770	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
8	5	1	4	4	Turbines et roues hydrauliques ..... Nomb.
1,785	2,548	750	1,960	580	Capacité totale ..... H.P.
2	6	14	13	1	Machines à vapeur, à mouvement alternatif ..... Nomb.
29,500	17,740	97,545	72,025	150	Capacité totale ..... H.P.
6	17	75	13	8	Turbines à vapeur ..... Nomb.
890	1,875	11,404	903	1,883	Capacité totale ..... H.P.
1,454,949	149,602	94,043	65,091	8,822	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
199	45	63	23	19	Dynamos, C.A. .... Nomb.
1,454,914	149,581	93,527	63,906	8,802	Capacité totale ..... Kv.A.
1	3	30	4	1	Dynamos, C.D. .... Nomb.
35	21	516	1,185	20	Capacité totale ..... Kw.

TABLE 12 - MAIN PLANT EQUIPMENT, 1943

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	9,602,794	9,215	177,880	151,250	5,400,377
Water wheels and turbines ..... No.	100.00	0.10	1.85	1.57	56.24
Total capacity ..... H.P.	865	6	58	17	293
Steam reciprocating engines ..... No.	9,205,169	363	108,215	107,010	5,397,362
Total capacity ..... H.P.	36	-	1	5	2
Steam turbines ..... No.	9,050	-	500	3,180	105
Total capacity ..... H.P.	74	4	14	7	1
Gas and oil engines ..... No.	345,571	6,680	68,436	40,080	150
Total capacity ..... H.P.	484	12	12	6	8
Gas and oil engines ..... No.	43,004	2,172	729	980	2,760
Total capacity ..... H.P.					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	7,982,027	6,945	148,345	129,262	4,572,781
Dynamos, A.C. .... No.	100.00	0.09	1.86	1.62	57.29
Total capacity ..... Kv.A.	1,215	20	85	32	301
Dynamos, D.C. .... No.	7,977,419	6,945	148,345	128,412	4,572,761
Total capacity ..... Kw.	223	-	-	2	1
Total capacity ..... Kw.	4,608	-	-	850	20
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	7,259,936	7,260	89,525	111,630	5,318,632
Water wheels and turbines ..... No.	100.00	.10	1.24	1.54	73.46
Total capacity ..... H.P.	575	6	19	11	263
Steam reciprocating engines ..... No.	7,069,774	363	26,170	94,150	5,318,302
Total capacity ..... H.P.	19	-	1	5	-
Steam turbines ..... No.	5,197	-	500	3,180	-
Total capacity ..... H.P.	38	4	11	3	1
Gas and oil engines ..... No.	142,790	6,680	62,855	13,700	150
Total capacity ..... H.P.	346	5	-	2	2
Gas and oil engines ..... No.	22,175	217	-	600	180
Total capacity ..... H.P.					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	6,074,895	5,329	75,576	95,181	4,501,809
Dynamos, A.C. .... No.	100.00	.09	1.24	1.57	74.10
Total capacity ..... Kv.A.	776	13	31	18	264
Dynamos, D.C. .... No.	6,072,064	5,329	75,576	94,351	4,501,789
Total capacity ..... Kw.	184	-	-	2	1
Total capacity ..... Kw.	2,831	-	-	850	20
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	2,362,858	1,955	88,355	39,620	81,745
Water wheels and turbines ..... No.	100.00	.08	3.74	1.68	3.46
Total capacity ..... H.P.	290	-	39	6	30
Steam reciprocating engines ..... No.	2,135,395	-	82,045	12,860	79,060
Total capacity ..... H.P.	17	-	-	-	2
Steam turbines ..... No.	3,853	-	-	-	105
Total capacity ..... H.P.	36	-	3	4	-
Gas and oil engines ..... No.	202,781	-	5,581	26,380	-
Total capacity ..... H.P.	158	7	12	4	6
Gas and oil engines ..... No.	20,829	1,955	729	380	2,580
Total capacity ..... H.P.					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	1,907,132	1,616	72,769	34,081	70,972
Dynamos, A.C. .... No.	100.00	.08	3.82	1.79	3.72
Total capacity ..... Kv.A.	439	7	54	14	37
Dynamos, D.C. .... No.	1,905,355	1,616	72,769	34,081	70,972
Total capacity ..... Kw.	39	-	-	-	-
Total capacity ..... Kw.	1,777	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	7,642,381	338	87,184	92,238	4,570,262
Dynamos, A.C. .... No.	100.00	.01	1.14	1.21	59.80
Total capacity ..... Kv.A.	857	5	58	16	291
Dynamos, D.C. .... No.	7,642,091	338	87,184	92,038	4,570,242
Total capacity ..... Kw.	4	-	-	1	1
Total capacity ..... Kw.	290	-	-	200	20
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	339,646	6,607	61,161	37,024	2,519
Dynamos, A.C. .... No.	100.00	1.94	18.01	10.90	.74
Total capacity ..... Kv.A.	358	15	27	16	10
Dynamos, D.C. .... No.	335,328	6,607	61,161	36,374	2,519
Total capacity ..... Kw.	219	-	-	1	-
Total capacity ..... Kw.	4,318	-	-	650	-

X - Capacity of one hydraulic station in Saskatchewan included in Manitoba.



TABLEAU 12 - OUTILLAGE DES USINES PRINCIPALES, 1943

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,352,197	X 512,717	X 168,668	177,366	653,124	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
24.49	5.34	1.76	1.85	6.80	Pourcentage du total pour le Canada ..... H.P.
355	43	-	9	84	roues hydrauliques et turbines ..... Nomb.
2,350,882	508,300	-	91,000	642,037	Capacité totale ..... H.P.
7	5	1	10	5	Machines à vapeur, à mouvement alternatif ..... Nomb.
270	818	750	2,958	469	Capacité totale ..... H.P.
-	2	26	15	5	Turbines à vapeur ..... Nomb.
-	1,250	144,310	77,325	7,340	Capacité totale ..... H.P.
9	30	251	121	35	Moteurs à gaz et à pétrole ..... Nomb.
1,045	2,349	23,608	6,083	3,278	Capacité totale ..... H.P.
1,895,945	411,298	142,620	146,135	528,696	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
23.75	5.15	1.79	1.83	6.62	Pourcentage du total pour le Canada ..... Nomb.
365	75	135	79	123	Dynamios, C.A. .... Nomb.
1,895,900	411,271	140,890	144,361	528,534	Capacité totale ..... Kv.A.
2	4	142	66	6	Dynamios, C.D. .... Nomb.
45	27	1,730	1,774	162	Capacité totale ..... Kw.
554,462	354,644	58,969	102,478	642,336	<u>USINES COMMERCIALES</u>
7.66	4.90	0.81	1.42	8.87	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
169	23	-	9	75	Pourcentage du total pour le Canada ..... H.P.
554,222	353,300	-	91,000	632,267	Turbines et roues hydrauliques ..... Nomb.
3	1	-	6	3	Capacité totale ..... H.P.
85	20	-	998	414	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	12	2	5	Capacité totale ..... H.P.
-	-	46,765	5,300	7,340	Turbines à vapeur ..... Nomb.
3	20	176	108	30	Capacité totale ..... H.P.
155	1,324	12,204	5,180	2,315	Moteurs à gaz et à pétrole ..... Nomb.
467,211	279,157	48,577	81,044	521,011	Capacité totale ..... H.P.
7.69	4.60	.80	1.33	8.58	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
172	42	72	56	108	Pourcentage du total pour le Canada ..... Nomb.
467,201	279,151	47,363	80,455	520,869	Dynamios, C.A. .... Nomb.
1	1	112	62	5	Capacité totale ..... Kv.A.
10	6	1,214	589	142	Dynamios, C.D. .... Nomb.
1,797,735	158,073	109,699	74,888	10,788	Capacité totale ..... Kw.
76.08	6.69	4.64	3.17	0.46	<u>USINES MUNICIPALES</u>
186	20	-	-	9	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
1,796,660	155,000	-	-	9,770	Pourcentage du total pour le Canada ..... H.P.
4	4	1	4	2	Turbines et roues hydrauliques ..... Nomb.
185	798	750	1,960	55	Capacité totale ..... H.P.
-	2	14	13	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	1,250	97,545	72,025	-	Capacité totale ..... H.P.
6	10	75	13	5	Turbines à vapeur ..... Nomb.
890	1,025	11,404	903	963	Capacité totale ..... H.P.
1,428,734	132,141	94,043	65,091	7,685	Moteurs à gaz et à pétrole ..... Nomb.
74.92	6.93	4.93	3.41	.40	Capacité totale ..... H.P.
193	33	63	23	15	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
1,428,699	132,120	93,527	63,906	7,665	Pourcentage du total pour le Canada ..... Nomb.
1	3	30	4	1	Dynamios, C.A. .... Nomb.
35	21	516	1,185	20	Capacité totale ..... Kv.A.
1,894,973	407,600	-	71,500	518,286	Dynamios, C.D. .... Nomb.
24.77	5.33	-	0.96	6.78	Capacité totale ..... Kw.
352	43	-	9	83	<u>USINES HYDRAULIQUES</u>
1,894,973	407,600	-	71,500	518,216	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
-	-	-	-	2	Pourcentage du total pour le Canada ..... Nomb.
-	-	-	-	70	Dynamios, C.A. .... Nomb.
972	3,698	142,620	74,635	10,410	Capacité totale ..... Kv.A.
.28	1.09	42.00	21.98	3.06	Dynamios, C.D. .... Nomb.
13	32	135	70	40	Capacité totale ..... Kw.
927	3,671	140,890	72,261	10,318	<u>USINES A COMBUSTIBLE</u>
2	4	142	66	4	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
45	27	1,730	1,774	92	Pourcentage du total pour le Canada ..... Nomb.
					Dynamios, C.A. .... Nomb.
					Capacité totale ..... Kv.A.
					Dynamios, C.D. .... Nomb.
					Capacité totale ..... Kw.

X - Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.



TABLE 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1943

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>PRIMARY POWER</b>						
Water wheels and turbines ..... H.P.	9,602,794	9,215	177,880	151,250	5,400,377	2,352,197
..... No.	865	6	58	17	293	355
Total H.P.	9,205,169	363	108,215	107,010	5,397,362	2,350,882
..... No.	132	6	19	2	31	52
Under 500 H.P. .... Total H.P.	28,304	363	4,725	710	6,368	12,192
..... No.	220	-	20	4	60	124
500 - 2,000 H.P. .... Total H.P.	237,369	-	21,100	3,800	63,294	135,055
..... No.	139	-	12	6	35	66
2,000 - 5,000 H.P. .... Total H.P.	410,971	-	41,390	17,500	99,000	188,935
..... No.	113	-	7	1	33	35
5,000 - 10,000 H.P. .... Total H.P.	745,225	-	41,000	5,000	233,400	225,000
..... No.	83	-	-	-	28	46
10,000 - 15,000 H.P. .... Total H.P.	960,900	-	-	-	301,900	550,200
..... No.	58	-	-	4	20	11
15,000 - 25,000 H.P. .... Total H.P.	1,091,500	-	-	80,000	408,500	182,500
..... No.	76	-	-	-	57	6
25,000 - 50,000 H.P. .... Total H.P.	2,672,900	-	-	-	2,115,900	168,000
..... No.	44	-	-	-	29	15
50,000 H.P. and up .... Total H.P.	3,058,000	-	-	-	2,169,000	889,000
..... No.	36	-	1	5	2	7
Internal combustion engines .... Total H.P.	9,050	-	500	3,180	105	270
..... No.	29	-	-	2	2	7
Under 500 H.P. .... Total H.P.	3,340	-	-	280	105	270
..... No.	7	-	1	3	-	-
500 H.P. and up .... Total H.P.	5,710	-	500	2,900	-	-
..... No.	74	4	14	7	1	-
Steam turbines .... Total H.P.	345,571	6,680	68,436	40,080	150	-
..... No.	4	-	-	-	1	-
Under 500 H.P. .... Total H.P.	992	-	-	-	150	-
..... No.	20	3	2	1	-	-
500 - 2,000 H.P. .... Total H.P.	22,699	4,180	2,256	700	-	-
..... No.	26	1	6	3	-	-
2,000 - 5,000 H.P. .... Total H.P.	77,501	2,500	17,405	11,000	-	-
..... No.	24	-	6	3	-	-
5,000 - 10,000 H.P. and up .... Total H.P.	244,379	-	48,775	28,380	-	-
..... No.	484	12	12	6	8	9
Gas and oil engines .... Total H.P.	43,004	2,172	729	980	2,760	1,045
<b>SECONDARY POWER</b>						
Dynamos, A.C. and D.C. .... No.	1,438	20	85	34	302	367
Total Kv.A.	7,982,027	6,945	148,345	129,262	4,572,781	1,895,945
Dynamos, A.C. .... No.	1,215	20	85	32	301	365
Total Kv.A.	7,977,419	6,945	148,345	128,412	4,572,761	1,895,900
..... No.	110	5	9	-	4	7
Under 50 Kv.A. .... Total Kv.A.	3,121	136	256	-	159	198
..... No.	183	6	11	7	18	30
50 - 200 Kv.A. .... Total Kv.A.	19,652	493	1,211	802	1,752	3,657
..... No.	146	5	16	2	25	43
200 - 500 Kv.A. .... Total Kv.A.	45,608	1,486	5,113	675	8,768	13,483
..... No.	139	1	10	4	38	68
500 - 1,000 Kv.A. .... Total Kv.A.	99,419	625	7,195	2,750	27,600	48,820
..... No.	281	3	31	12	53	118
1,000 - 5,000 Kv.A. .... Total Kv.A.	657,285	4,205	82,395	29,475	114,295	252,610
..... No.	117	-	8	3	25	49
5,000 - 10,000 Kv.A. .... Total Kv.A.	821,752	-	52,175	24,710	166,020	368,592
..... No.	73	-	-	-	32	25
10,000 - 15,000 Kv.A. .... Total Kv.A.	789,825	-	-	-	333,660	267,040
..... No.	64	-	-	4	23	8
15,000 - 25,000 Kv.A. .... Total Kv.A.	1,199,000	-	-	70,000	454,250	154,000
..... No.	81	-	-	-	67	12
25,000 - 50,000 Kv.A. .... Total Kv.A.	2,969,757	-	-	-	2,366,257	515,500
..... No.	21	-	-	-	16	5
50,000 Kv.A. and up .... Total Kv.A.	1,372,000	-	-	-	1,100,000	272,000
Dynamos, D.C. .... No.	223	-	-	2	1	2
Total Kw.	4,606	-	-	850	20	45
Under 50 Kw. .... No.	218	-	-	-	1	2
Total Kw.	2,408	-	-	-	20	45
..... No.	1	-	-	-	-	-
50 - 200 Kw. .... Total Kw.	120	-	-	-	-	-
..... No.	2	-	-	1	-	-
200 - 500 Kw. .... Total Kw.	600	-	-	200	-	-
..... No.	2	-	-	1	-	-
500 Kw. and up .... Total Kw.	1,400	-	-	650	-	-

TABEAU 13 - OUTILLAGE CLASSIFIÉ DES USINES PRINCIPALES, 1943

Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal	
512,717 43	168,668	177,366	653,124	7,239,936	2,362,858	<u>FORCE MOTRICE PRIMAIRE</u> ..... H.P.
508,300	-	91,000	642,037	7,069,774	2,135,395	Turbines et roues hydrauliques ..... Nomb.
-	-	-	22	89	43	Total H.P.
-	-	-	3,946	16,904	11,400	Moins de 500 H.P. .... Nomb.
-	-	-	12	120	100	Total H.P.
4	-	2	14,120	124,324	113,045	500 - 2,000 H.P. .... Nomb.
12,800	-	8,000	43,346	285,421	125,550	Total H.P.
21	-	4	12	73	40	2,000 - 5,000 H.P. .... Nomb.
130,000	-	24,000	86,825	500,025	245,200	Total H.P.
4	-	-	5	55	28	10,000 - 15,000 H.P. .... Nomb.
50,000	-	-	58,800	608,200	352,700	Total H.P.
8	-	5	12	44	14	15,000 - 25,000 H.P. .... Nomb.
147,500	-	59,000	214,000	861,000	230,500	Total H.P.
6	-	-	7	70	6	25,000 - 50,000 H.P. .... Nomb.
168,000	-	-	221,000	2,504,900	168,000	Total H.P.
-	-	-	-	29	15	50,000 et plus H.P. .... Nomb.
-	-	-	-	2,169,000	889,000	Total H.P.
5	1	10	5	19	17	<u>Machines à vapeur, à mouvement alternatif</u> ..... Nomb.
818	750	2,958	469	5,197	3,853	Total H.P.
5	-	8	5	15	14	Moins de 500 H.P. .... Nomb.
818	-	1,398	469	1,797	1,543	Total H.P.
-	1	2	-	4	3	500 H.P. et plus .... Nomb.
-	750	1,560	-	3,400	2,310	Total H.P.
2	28	15	5	38	36	<u>Turbines à vapeur</u> ..... Nomb.
1,250	144,310	77,325	7,340	142,790	202,781	Total H.P.
1	1	1	-	1	3	Moins de 500 H.P. .... Nomb.
400	267	175	-	150	842	Total H.P.
1	7	2	4	12	8	500 - 2,000 H.P. .... Nomb.
850	8,373	2,000	4,340	14,423	8,276	Total H.P.
-	9	6	1	15	11	2,000 - 5,000 H.P. .... Nomb.
-	26,296	17,300	3,000	41,176	36,325	Total H.P.
-	9	6	-	10	14	5,000 - 10,000 H.P. .... Nomb.
-	109,374	57,850	-	87,041	157,338	Total H.P.
30	251	121	35	346	138	<u>Moteurs à gaz et à pétrole</u> ..... Nomb.
2,349	23,608	6,083	3,278	22,175	20,829	Total H.P.
						<u>FORCE MOTRICE SECONDAIRE</u>
79	277	145	129	960	478	<u>Dynamos, C.A. &amp; C.D.</u> ..... Nomb.
411,298	142,620	146,135	528,690	6,074,895	1,907,152	Total Kv.A.
75	135	79	125	776	439	<u>Dynamos, C.A.</u> ..... Nomb.
411,271	140,890	144,361	528,534	6,072,064	1,905,355	Total Kv.A.
16	32	22	15	75	35	Moins de 50 Kv.A. .... Nomb.
436	984	555	397	2,131	990	Total Kv.A.
10	42	28	31	123	60	50 - 200 Kv.A. .... Nomb.
984	4,601	2,926	3,226	12,548	7,104	Total Kv.A.
5	32	6	12	68	78	200 - 500 Kv.A. .... Nomb.
1,470	9,739	1,450	3,424	20,753	24,855	Total Kv.A.
1	6	2	9	79	60	500 - 1,000 Kv.A. .... Nomb.
781	3,886	1,500	6,262	55,470	43,949	Total Kv.A.
14	15	13	22	172	109	1,000 - 5,000 Kv.A. .... Nomb.
46,350	34,180	39,875	53,900	401,305	255,980	Total Kv.A.
11	4	3	14	70	47	5,000 - 10,000 Kv.A. .... Nomb.
70,750	25,000	16,805	97,700	490,625	331,127	Total Kv.A.
7	2	1	6	54	19	10,000 - 15,000 Kv.A. .... Nomb.
76,000	25,000	12,500	75,625	591,225	198,600	Total Kv.A.
11	2	4	12	50	14	15,000 - 25,000 Kv.A. .... Nomb.
214,500	37,500	68,750	200,000	943,750	255,250	Total Kv.A.
-	-	-	2	69	12	25,000 - 50,000 Kv.A. .... Nomb.
-	-	-	88,000	2,454,257	515,500	Total Kv.A.
-	-	-	-	16	5	50,000 Kv.A. et plus .... Nomb.
-	-	-	-	1,100,000	271,000	Total Kv.A.
4	142	66	6	184	39	<u>Dynamos, C.D.</u> ..... Nomb.
27	1,730	1,774	162	2,861	1,777	Total Kw.
4	141	64	6	182	36	Moins de 50 Kw. .... Nomb.
27	1,610	624	162	1,981	507	Total Kw.
-	1	-	-	-	1	50 - 200 Kw. .... Nomb.
-	120	-	-	-	120	Total Kw.
-	-	1	-	1	1	200 - 500 Kw. .... Nomb.
-	-	400	-	200	400	Total Kw.
-	-	1	-	1	1	500 Kw. et plus .... Nomb.
-	-	750	-	650	750	Total Kw.



TABLE 14 - ELECTRIC ENERGY GENERATED, 1943

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>ALL STATIONS</b>					
Total kilowatt hours generated ..... (thousands)	40,479,593	14,616	579,470	506,134	23,477,824
Per cent of total for Canada .....	100.00	.04	1.43	1.25	58.00
Kilowatt hours generated by non-generating stations.. (thousands)	5,276	-	1,840	-	3,330
Kilowatt hours generated by generating stations ..... (thousands)	40,474,317	14,616	577,630	506,134	23,474,494
Kv.A. capacity of generating stations .....	8,117,874	6,993	148,495	129,262	4,596,675
Ratio of output to maximum capacity .....	59.76	23.86	44.41	44.70	63.65
Average kilowatt hours per Kv.A. ....	4,986	2,090	3,890	3,910	5,107
<b>GENERATING STATIONS</b>					
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated ..... (thousands)	31,080,296	10,633	293,469	403,100	23,258,363
Kv.A. capacity .....	6,170,461	5,377	75,726	95,181	4,524,934
Ratio of output to maximum capacity .....	61.34	22.57	44.24	48.34	64.16
Average kilowatt hours per Kv.A. ....	5,036	1,977	3,875	4,235	5,140
<b>Hydraulic Stations</b>					
Kilowatt hours generated ..... (thousands)	30,723,472	363	106,947	369,433	23,257,843
Kv.A. capacity .....	6,027,284	386	19,926	81,975	4,524,662
Ratio of output to maximum capacity .....	62.18	10.73	61.27	51.44	64.16
Average kilowatt hours per Kv.A. ....	5,097	940	5,367	4,506	5,140
<b>Fuel Stations</b>					
Kilowatt hours generated ..... (thousands)	356,824	10,270	186,522	33,667	520
Kv.A. capacity .....	143,177	4,991	55,800	13,206	272
Ratio of output to maximum capacity .....	28.45	23.48	38.15	29.10	21.82
Average kilowatt hours per Kv.A. ....	2,492	2,057	3,342	2,549	1,911
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL</b>					
Kilowatt hours generated ..... (thousands)	9,394,021	3,983	284,161	103,034	216,131
Kv.A. capacity .....	1,947,413	1,616	72,769	34,081	71,741
Ratio of output to maximum capacity .....	55.06	28.13	44.57	34.51	34.38
Average kilowatt hours per Kv.A. ....	4,823	2,464	3,904	3,023	3,012
<b>Hydraulic Stations</b>					
Kilowatt hours generated ..... (thousands)	8,992,717	-	269,531	25,749	210,691
Kv.A. capacity .....	1,750,944	-	67,408	10,263	69,494
Ratio of output to maximum capacity .....	58.62	-	45.64	28.63	34.60
Average kilowatt hours per Kv.A. ....	5,135	-	3,998	2,508	3,031
<b>Fuel Stations</b>					
Kilowatt hours generated ..... (thousands)	401,304	3,983	14,630	77,285	5,440
Kv.A. capacity .....	196,469	1,616	5,351	23,818	2,247
Ratio of output to maximum capacity .....	23.31	28.13	31.14	37.03	27.63
Average kilowatt hours per Kv.A. ....	2,042	2,464	2,728	3,244	2,421
<b>TOTAL HYDRAULIC STATIONS</b>					
Kilowatt hours generated ..... (Thousands)	39,716,189	363	376,478	395,182	23,468,534
Kv.A. capacity .....	7,778,228	386	87,334	92,238	4,594,156
Ratio of output to maximum capacity .....	61.34	10.73	49.20	48.90	63.67
Average kilowatt hours per Kv.A. ....	5,106	940	4,310	4,284	5,108
Kilowatt hours generated by water power ..... (thousands)	39,660,312	346	376,466	395,182	23,468,385
Kilowatt hours generated by auxiliary plants ..... (thousands)	55,877	17	12	-	149
<b>TOTAL FUEL STATIONS</b>					
Kilowatt hours generated ..... (thousands)	758,128	14,253	201,152	110,952	5,960
Kv.A. capacity .....	339,646	6,607	61,161	37,024	2,519
Ratio of output to maximum capacity .....	25.48	24.62	37.53	34.20	27.00
Average kilowatt hours per Kv.A. ....	2,232	2,157	3,288	2,996	2,366
<b>CONSUMPTION OF ELECTRIC ENERGY (Thousands of Kilowatt Hours) .....</b>					
Total kilowatt hours generated .....	40,479,593	14,616	579,470	506,134	23,477,824
Kilowatt hours imported from the United States .....	599	-	-	6	240
Kilowatt hours imported from other provinces .....	-	-	-	6,488	54,749
Kilowatt hours exported to the United States .....	2,545,036	-	-	38,501	2,506
Kilowatt hours exported to other provinces .....	-	-	-	380	5,180,830
<b>KILOWATT HOURS FOR CONSUMPTION IN CANADA ..... (Thousands)</b>					
Domestic service .....	37,935,154	14,616	579,470	473,747	18,349,477
Commercial light .....	2,843,612	3,895	57,324	35,294	398,305
Small power .....	1,260,809	2,760	41,226	25,670	508,467
Large power .....	664,673	1,099	48,826	10,526	123,261
Street lighting .....	29,454,521	4,716	362,660	373,121	16,386,470
Free service (other than street lighting).....	192,845	370	5,540	4,247	38,638
Losses .....	67,330	63	20	259	54,207
	3,451,364	1,713	65,874	24,630	1,040,129

/ Excludes exports to other provinces and/or to the United States.



TABLEAU 14 - ENERGIE ELECTRIQUE GENEREE, 1943

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
10,308,673	2,223,725	232,195	512,985	2,623,971	<u>TOUTES USINES</u>
25.47	5.49	1.57	1.27	6.48	Total kw. heure générés ..... (milliers)
-	5	-	-	105	Pourcentage au total pour le Canada .....
10,308,673	2,223,722	232,195	512,985	2,623,868	Kilowatt-heure générés par les usines non-génératrices .. (milliers)
1,927,133	436,298	142,620	162,797	567,601	Kilowatt-heure générés par les usines génératrices ..... (milliers)
61.06	58.18	18.58	35.97	52.77	Capacité des usines génératrices en Kv.A. ....
5,349	5,097	1,628	3,151	4,623	Proportion de la production à la capacité maximum ..... p.c.
					Moyenne de kilowatt-heure par Kv.A. ....
					<u>USINES GENERATRICES</u>
					<u>USINES COMMERCIALES</u>
					<u>TOTAL</u>
2,488,432	1,568,525	80,015	371,171	2,606,588	Kilowatt-heure générés ..... (milliers)
473,399	290,407	48,577	97,706	559,154	Capacité en Kv.A. ....
60.00	61.36	18.80	43.36	53.21	Proportion de la production à la capacité maximum ..... p.c.
5,256	5,401	1,647	3,798	4,661	Moyenne de kilowatt-heure par Kv.A. ....
					<u>Usines Hydrauliques</u>
2,488,268	1,567,420	-	353,752	2,579,446	Kilowatt-heure générés ..... (milliers)
473,244	289,350	-	88,162	549,579	Capacité en Kv.A. ....
60.01	61.94	-	45.80	53.57	Proportion de production à la capacité maximum ..... p.c.
5,257	5,417	-	4,012	4,693	Moyenne de kilowatt-heure par Kv.A. ....
					<u>Usines à combustible</u>
164	1,105	80,015	17,419	27,142	Kilowatt-heure générés ..... (milliers)
155	1,057	48,577	9,544	9,575	Capacité en Kv.A. ....
12.08	11.93	18.80	20.83	32.35	Proportion de production à la capacité maximum ..... p.c.
1,058	1,045	1,647	1,625	2,834	Moyenne de kilowatt-heure par Kv.A. ....
					<u>USINES MUNICIPALES</u>
					<u>TOTAL</u>
7,820,241	655,197	152,180	141,814	17,280	Kilowatt-heure générés ..... (milliers)
1,453,734	145,891	94,043	65,091	8,447	Capacité en Kv.A. ....
61.40	51.27	18.47	24.86	25.34	Proportion de la production à la capacité maximum ..... p.c.
5,379	4,491	1,618	2,178	2,045	Moyenne de kilowatt-heure par Kv.A. ....
					<u>Usines Hydrauliques</u>
7,819,257	651,921	-	-	15,568	Kilowatt-heure générés ..... (milliers)
1,452,917	143,250	-	-	7,612	Capacité en Kv.A. ....
61.44	51.94	-	-	28.34	Proportion de production à la capacité maximum ..... p.c.
5,382	4,550	-	-	2,045	Moyenne de kilowatt-heure par Kv.A. ....
					<u>Usines à combustible</u>
984	3,276	152,180	141,814	1,712	Kilowatt-heure générés ..... (milliers)
617	2,641	94,043	65,091	835	Capacité en Kv.A. ....
13.74	14.16	18.47	24.86	23.40	Proportion de la production à la capacité maximum ..... p.c.
1,204	1,240	1,618	2,178	2,050	Moyenne de kilowatt-heure par Kv.A. ....
					<u>TOUTES USINES HYDRAULIQUES</u>
10,307,525	2,219,341	-	353,752	2,595,014	Kilowatt-heure générés ..... (milliers)
1,926,161	432,600	-	88,162	557,191	Capacité en Kv.A. ....
61.08	58.56	-	45.80	53.16	Proportion de la production à la capacité maximum ..... p.c.
5,351	5,130	-	4,012	4,657	Moyenne de kilowatt-heure par Kv.A. ....
10,307,575	2,219,227	-	338,176	2,555,155	Kw.-heure générés par force motrice hydraulique ..... (milliers)
150	114	-	15,576	39,859	Kw.-heure générés par les usines auxiliaires ..... (milliers)
					<u>TOUTES USINES A COMBUSTIBLE</u>
1,148	4,361	232,195	159,233	28,854	Kilowatt-heure générés ..... (milliers)
972	3,698	142,620	74,635	10,410	Capacité en Kv.A. ....
13.48	13.52	18.58	24.35	31.63	Proportion de la production à la capacité maximum ..... p.c.
1,181	1,184	1,628	2,133	2,771	Moyenne de kilowatt-heure par Kv.A. ....
					<u>CONSOMMATION D'ENERGIE ELECTRIQUE (En Milliers de Kw.H.)</u>
10,308,673	2,223,725	232,195	512,985	2,623,971	Total de kilowatt-heure générés .....
-	221	40	92	-	Kilowatt-heure importés des Etats-Unis .....
5,174,342	-	-	6,163	-	Kilowatt-heure importés d'autres provinces .....
2,502,651	1,139	-	-	241	Kilowatt-heure exportés aux Etats-Unis .....
54,369	-	-	-	6,163	Kilowatt-heure exportés à d'autres provinces .....
					<u>KILOWATT-HEURE CONSOMMES AU CANADA</u> ..... (Milliers)
12,925,995	2,222,807	232,235	519,240	2,617,567	Service domestique .....
1,682,562	374,169	48,996	52,100	190,967	Eclairage commercial .....
573,939	98,118	42,332	51,600	116,697	Petite force motrice .....
301,303	57,470	28,197	49,480	44,511	Gross force motrice .....
8,594,576	1,429,287	83,326	294,091	1,926,274	Eclairage des rues .....
83,897	22,724	7,877	10,098	19,454	Service gratuit (autre que l'éclairage des rues) .....
638	56	142	2,039	9,906	Pertes .....
1,689,080	240,983	21,365	59,832	309,758	

/ Exclut les exportations par d'autres provinces et/ou aux Etats-Unis

TABLE 15 - FUEL, 1943

	Bituminous Coal Charbon Bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA .....	507,284	2,266,913	4,743	39,764
Prince Edward Island .....	11,360	76,187	-	-
Nova Scotia .....	198,590	903,266	-	-
New Brunswick .....	94,159	476,111	-	-
Quebec .....	597	4,423	4,743	39,764
Ontario .....	205	1,008	-	-
Manitoba .....	494	5,004	-	-
Saskatchewan .....	138,393	649,794	-	-
Alberta .....	36,272	40,215	-	-
British Columbia and Yukon ....	27,214	110,905	-	-
	Fuel Oil and Diesel Oil Mazout et huile diesel		Wood Bois	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Gal. Gal.	\$	Cords Cordes	\$
CANADA .....	10,905,705	888,629	4,326	21,617
Prince Edward Island .....	344,536	35,007	50	150
Nova Scotia .....	168,925	17,105	-	-
New Brunswick .....	108,624	11,906	-	-
Quebec .....	432,853	41,917	152	758
Ontario .....	160,910	17,858	-	-
Manitoba .....	237,306	44,555	3,924	20,409
Saskatchewan .....	4,639,207	348,707	200	300
Alberta .....	509,346	74,394	-	-
British Columbia and Yukon ....	4,303,998	297,130	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial.  
Cords = 128 cu. feet.

TABLEAU 15 - COMBUSTIBLE, 1943

<u>Lignite Coal</u> Charbon Lignite		<u>Gasolene</u> Gasoline		<u>Kerosene</u> Kérosène	
Canadian - Canadien					
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
235,995	522,853	23,692	5,033	8,710	1,367
-	-	200	40	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	250	75	-	-
-	-	180	56	-	-
6,616	29,032	230	76	150	23
102,241	217,423	8,996	1,945	3,150	440
127,138	276,398	11,906	2,368	5,410	904
-	-	1,930	473	-	-
<u>Manufactured Gas</u> Gaz fabriqué		<u>Natural Gas</u> Gaz naturel		<u>Other Fuel</u> Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu. ft. 1,000 pds.cu.	\$	1,000 cu. ft. 1,000 pds.cu.	\$	\$	\$
6,630,000	79,560	996,494	93,329	49,146	3,968,211
-	-	-	-	-	111,384
6,630,000	79,560	-	-	500	1,000,431
-	-	-	-	-	488,017
-	-	-	-	-	86,937
-	-	-	-	-	18,922
-	-	-	-	6,046	105,145
-	-	-	-	-	1,218,609
-	-	996,494	93,329	-	487,608
-	-	-	-	42,600	451,158

Note: Tonne = 2,000 livres.  
Gallon = Impérial.  
Corde = 128 pds. cu.





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**CANADA**

**(DEPARTMENT OF TRADE AND COMMERCE)**

**DOMINION BUREAU OF STATISTICS**

**TRANSPORTATION & PUBLIC UTILITIES BRANCH**

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**(CENSUS OF INDUSTRY)**

**(1944)**

*Electric power generating*

**CENTRAL ELECTRIC STATIONS  
IN CANADA**

1944

(Prepared in collaboration with the Dominion  
Water and Power Bureau, Department of  
Mines and Resources)



**OTTAWA  
1946**



Price 25 cents





DOMINION BUREAU OF STATISTICS  
TRANSPORTATION AND PUBLIC UTILITIES BRANCH  
OTTAWA

Dominion Statistician, HERBERT MARSHALL, B.A., F.S.S.  
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CENTRAL ELECTRIC STATION INDUSTRY, 1944

20-1900

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals, and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 21 stations which were holding generating equipment classed as auxiliary plant equipment. Fourteen of them purchased all their electric energy and the remaining seven generated only 1,119,000 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

Primary power produced for use in Canada (including line losses) increased from 19,396,231,000 kilowatt hours in 1939 to 35,284,444,000 kilowatt hours in 1944 or by 82 per cent, whereas secondary power consumption declined from 7,033,709,000 to 2,745,121,000 kilowatt hours or by 61 per cent. Primary power consumption continued to show increases each month over that of the corresponding month in the previous year up to May, but for June and each subsequent month decreases were recorded, and according to monthly reports this trend continued throughout 1945. Consumption of secondary power began to show monthly increases in May, 1944, and continued to show increases through 1944 and 1945.

The production of electric energy for secondary use each month is shown below.

SECONDARY POWER FOR USE IN CANADA

(Thousands of Kilowatt Hours)

Month	1 9 4 1	1 9 4 2	1 9 4 3	1 9 4 4
January	254,150	263,203	129,985	132,138
February	221,700	208,221	126,124	146,975
March	235,823	264,013	148,811	167,028
April	335,398	238,672	189,265	162,288
May	388,909	291,739	263,430	319,574
June	205,865	249,143	239,342	263,938
July	229,452	141,722	199,275	126,336
August	164,271	102,224	184,787	209,721
September	270,359	94,586	181,952	201,485
October	335,863	130,769	136,424	267,605
November	407,939	147,441	158,724	347,940
December	331,706	107,380	155,729	398,093
TOTAL	3,381,435	2,239,113	2,113,848	2,743,121

The pulp and paper industry was the largest consumer of electric energy prior to war, but because of restrictions on the use of electricity in boilers the total consumption has declined, although the consumption of primary power continued to increase. With the great development in the aluminium industry, it became in 1944 the largest consumer of electric energy; it takes approximately ten kilowatt hours to produce one pound of aluminium. The aluminium industry is included under Metal Smelting and Refining in the following table, which shows the consumptions for groups of industries using large quantities of electricity. Data for the six groups were taken from the industrial census reports, and consumption for other industries was computed by deduction, and consequently is only approximate.

**CONSUMPTION OF ELECTRIC ENERGY, 1944**  
(Thousands of Kilowatt Hours)

Industries	Central Electric Station Power Purchased				Power Generated by the Industries for own use
	Power and Light	Other Purposes	Total Central Electric Stn. Power	P.C. of Total Production	
Pulp and Paper .....	4,571,598	1,539,241	6,110,839	15.0	1,928,185
Ferro-Alloys .....	22,333	886,053	908,386	2.2	-
Abrasives .....	20,229	784,486	804,715	2.0	-
Electro-Chemicals .....	644,804	1,386,288	2,031,092	5.0	108,658
Metal, Smelting and Refining	974,507	9,453,652	10,428,159	25.7	257,758
Steel Furnaces .....	86,149	263,175	349,324	.9	73,471
<b>TOTAL .....</b>	<b>6,319,620</b>	<b>14,312,895</b>	<b>20,632,515</b>	<b>50.8</b>	<b>2,368,072</b>
Other Industries .....			9,150,852	22.5	
Domestic Service (Residential) .....			3,046,980	7.5	
Commercial Lighting .....			1,417,599	3.5	
Street Lighting .....			198,367	.5	
Free Service .....			103,337	.2	
Exports to U. S. A. ....			2,585,311	6.4	
Losses .....			3,477,915	8.6	
<b>TOTAL OUTPUT OF CENTRAL ELECTRIC STATIONS )</b> <b>Plus Imports (14,097 kw.hrs. )</b>			<b>40,612,876</b>	<b>100.0</b>	

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the calendar year ended December 31, 1944, the export duty amounted to \$657,009. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported.



below is a table showing the quantities of power exported for the calendar year 1944. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS EXPORTED TO THE UNITED STATES  
(Calendar Years 1943 and 1944)

Company	Exported 1 9 4 3	Exported 1 9 4 4
	Kw. Hrs.	Kw. Hrs.
Hydro-Electric Power Commission of Ontario .....	394,200,000	395,280,000
" " " " " " (surplus)- Niagara .....	797,987,458	834,114,105
" " " " " " " - Cornwall .....	287,376,480	274,102,890
Cedar Rapids Manufacturing and Power Co., Ltd. ....	643,037,269	627,047,466
Canadian Niagara Power Company, Ltd. ....	314,512,111	312,033,481
" " " " " (surplus) .....	30,214,300	64,931,100
Ontario and Minnesota Power Company .....	35,040,000	38,094,000
Maine and New Brunswick Electric Power Company .....	30,889,205	29,195,321
British Columbia Electric Railway Company, Ltd. ....	206,320	248,040
Northport Power and Light Company .....	16,368	16,444
Southern Canada Power Company .....	2,505,684	2,261,256
Canadian Cottons, Ltd. ....	727,100	1,164,000
Northern British Columbia Power Company .....	18,020	17,290
Fraser Companies, Ltd. ....	6,885,000	5,293,000
Detroit and Windsor Subway Company .....	283,300	292,200
Manitoba Power Commission .....	1,139,420	1,220,133
<b>TOTAL .....</b>	<b>2,545,038,035</b>	<b>2,585,310,716</b>

Of the total output of 40,598,779,000 kilowatt hours, 39,555,352,000 kilowatt hours or over 97 per cent, was produced by water power, whereas only 897,529,000 kilowatt hours were produced by plants using only thermal engines and 147,898,000 kilowatt hours were produced by thermal auxiliary equipment in hydraulic plants and in non-generating plants.

Total hydraulic installations in all industries in Canada at the close of 1944, including active and inactive plants, as compiled by the Dominion water and Power Bureau was 10,283,763 horse power. The available and developed water power in each province is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 4 4	1 9 4 5
	H. P.	H. P.	H. P.	H. P.
Prince Edward Island ..	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	133,384	133,384
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	5,848,572	5,848,572
Ontario .....	5,330,000	6,940,000	2,673,443	2,673,290
Manitoba .....	3,309,000	5,344,500	422,825	422,825
Saskatchewan .....	542,000	1,082,000	90,835	90,835
Alberta .....	390,000	1,049,500	94,997	94,997
British Columbia	7,023,000	10,998,000	864,024	864,024
Yukon and Northwest Territories	294,000	751,000	19,719	19,719
CANADA .....	25,439,400	39,511,700	10,283,763	10,283,610

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 51,350,000 horse power.



TABLE 1 - COMPARATIVE SUMMARY, 1934 - 1944

During the year there was a decrease of 2 hydraulic stations and an increase of 6 thermal stations, which was a total increase of 4 stations. Statistics on capital employed in the industry were not collected for 1944. Revenues increased by \$10,444,883 or 5.1 per cent, although production increased by only 0.29 per cent. The capacity of generators in main plant was increased by 91,837 Kw.A. or by 1.15 per cent, and the capacity of water wheels and thermal engines was increased by the same percentage or 110,997 h.p. The Quebec Hydro-Electric Commission took over the property of the Montreal Light Heat and Power Consolidated and acquired the stock of the Beauharnois Power Company as at April 16, 1944, and the statistics of these stations for the year have been included with the municipal stations, whereas in previous years they were included with the commercial stations. This transfer causes quite a marked variation in the statistics of the two classes of stations.

TABLE 2 - DOMESTIC SERVICE, 1935 - 1944

This table shows the number of customers, the consumption, revenue, and averages computed from these for domestic service including farm service for 1944 back to 1935. In all provinces the number of customers increased during this period, the percentages ranging from 24 per cent in Manitoba to 61 per cent in New Brunswick. The rate of consumption also increased in all provinces, Prince Edward Island leading here with an increase of 166 per cent. All of the provinces showed increased revenues from domestic service. The average annual consumption per customer varied widely, Manitoba leading with an average in 1944 of 4,284 kw. hrs. per customer and New Brunswick showing the smallest consumption at 670 kw. hrs. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario and British Columbia have been remarkably close together throughout these ten years despite the wide variations in unit costs. The bills do not include federal, provincial or municipal taxes on electricity purchased. Domestic services are further discussed under Table 5 and at the end of this report.

TABLE 3 - POWER PLANTS

The generating stations are the individual power plants of the central electric stations. Each building housing power machinery is counted as a generating station. The commercial organizations are companies and individuals selling electric energy and the municipalities include urban and rural municipalities, provincial commissions, etc., selling electric energy. Those generating power operate from one to several power plants each, the largest system being the Ontario Hydro-Electric Power Commission which operates 51 hydraulic plants and owns one steam auxiliary plant. The auxiliary plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations.



TABLE 4 - CAPITAL - Not collected for 1944

TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service, which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province, the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick, and Alberta, which purchased power from other provinces, were lower than they should have been.

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services for each station, but even here the use of electric stoves, flat rate water heaters, the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills, aluminium plants, wholesale to Ontario, etc., showed a smaller proportion of revenue from domestic service than any other stations, although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but for domestic service and farm services, for commercial light, etc., line losses were not included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average revenue of 1.75 cents per kilowatt hour for all domestic service compares with an average of 3.51 cents or 3.41 cents including farm services in the United States. The average revenues per horse power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in tables 12 and 13 were increased one horse power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro-Electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per week for each horse power purchased. It is quite probable this output is a little too high for all the power imported from Quebec, and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the

averages for the other provinces than the unadjusted averages as shown in reports previous to 1956. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

The Federal sales tax on domestic service bills has been treated by practically all central electric stations as a tax on the consumer and was not included in either revenues or expenses. The Act placed the tax on the producer or importer, but a subsequent Order in Council allowed the producer or importer to increase the charge to the consumer by the amount of the tax irrespective of any agreements, charters, etc. Only a few stations absorbed this tax, most of them passed it on to the consumer. Also provincial and municipal taxes on domestic bills, where imposed, have not been included as either revenue or expenses.

TABLE 6 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations. As explained above, the sales taxes on domestic bills have not been included in the taxes shown in this table.

Following is a table detailing the taxes reported by commercial and municipal stations. As stated in the foregoing, under "Revenues" these taxes do not include the federal, provincial and municipal taxes on sales of electricity for domestic use except in the few cases where the station absorbed the tax. They also do not include water rentals. The federal unemployment tax did not apply to all utility employees until September 1, 1943, but all stations apparently did not include the employer payments as a Dominion tax. Also all stations did not include the tax on gasoline used as a tax. It is common practice to treat sales taxes as part of the cost of the commodity. Some stations, however, did include gasoline taxes with their taxes. The Dominion tax included income and excess profits tax, tax on exports of electricity, and the two mentioned above. The greater part of the municipal tax paid by municipal stations was tax payments continued by the Ontario Hydro-Electric Power Commission on plant acquired by the Commission from commercial stations, and in Quebec export taxes and other taxes paid by the newly created Quebec Hydro-Electric Commission.

T A X E S

Province	Commercial Stations				Municipal Stations			
	Municipal	Provincial	Dominion	Total	Municipal	Provincial	Dominion	Total
	\$	\$	\$	\$	\$	\$	\$	\$
P.E. Island	17,319	1,354	12	18,685	-	-	-	-
Nova Scotia	254,499	9,781	1,168,003	1,432,283	39,001	1,438	113	40,552
New Brunswick	60,134	13,437	181,224	254,795	44	175	3,394	3,613
Quebec	1,599,929	242,511	5,876,092	7,718,532	677,573	16,582	126,790	820,945
Ontario	439,578	9,042	1,630,953	2,079,573	366,772	20,129	404,887	791,788
Manitoba	132,517	1,950	35	134,502	98,176	-	6,439	104,615
Saskatchewan	110,930	30	317,240	428,200	59,148	-	163	59,311
Alberta	44,344	1,606	525,069	571,019	127,754	-	94	127,848
Br. Columbia, Yukon & N.W.T.	340,726	212,235	2,722,514	3,275,475	-	-	7	7
<b>TOTAL</b>	<b>2,999,976</b>	<b>491,946</b>	<b>12,421,142</b>	<b>15,913,064</b>	<b>1,368,468</b>	<b>38,324</b>	<b>541,887</b>	<b>1,948,679</b>
<b>TOTAL-Commercial</b>	<b>2,999,976</b>	<b>491,946</b>	<b>12,421,142</b>	<b>15,913,064</b>				
<b>Municipal</b>	<b>1,368,468</b>	<b>38,324</b>	<b>541,887</b>	<b>1,948,679</b>				
<b>TOTAL</b>	<b>4,368,444</b>	<b>530,270</b>	<b>12,963,029</b>	<b>17,861,743</b>				



TABLE 7 - EMPLOYEES

There was a net increase of 650 employees during the year, Ontario stations showing the only decrease. The following table analyses the hours of work of wage earners in the industry. The majority, 46 per cent, worked a 48 hour week and 26 per cent worked 44 hours or less per week.

NUMBER OF WAGE EARNERS IN MONTH OF HIGHEST EMPLOYMENT  
WHOSE REGULAR HOURS PER WEEK WERE:

Hours per week	30 or less	31-43	44	45-47	48	49-50	51-54	55	64	65 & over	Total
P.E.I.	3	3	10	5	23	-	-	4	3	-	51
N. S.	112	76	40	10	168	29	79	8	231	43	796
N. B.	120	50	14	32	159	16	21	3	84	17	516
Quebec	237	180	106	107	2,411	289	312	105	572	23	4,342
Ontario	276	473	663	174	2,012	196	632	89	340	70	4,925
Manitoba	146	26	183	2	183	13	44	11	12	4	624
Sask.	62	13	66	21	283	3	12	1	43	7	511
Alberta	30	93	65	3	347	2	9	1	9	1	560
B.C. & Yukon	187	100	186	6	635	18	12	3	53	1	1,201
CANADA	1,173	1,014	1,333	360	6,221	566	1,121	225	1,347	166	13,526
P.C. of Total	8.7	7.5	9.8	2.7	46.0	4.2	8.3	1.6	10.0	1.2	100.0

TABLE 8 - CUSTOMERS

As explained under table 5, stations are required to segregate customers into seven classes but in the past many stations included farm customers with domestic customers, and in the Bureau's reports all customers in these two classes were combined and shown as "Domestic Customers". Below is a table showing the farm customers as reported, together with the respective consumptions and revenues received from them. These revenues do not include taxes as explained under "Revenues" on page 8. Because of the increasing attention to rural electrification, it is probable that these data are more comprehensive than previously reported. These data, however, are included under "Domestic" in tables 2, 5, 8 and 14 as in previous reports. The relatively large number of farm customers and low average revenue per kilowatt hour in Ontario are undoubtedly due to the assistance given by the Ontario Government to this class of service. The farm customers in Ontario include only farms, whereas in former years rural customers in hamlets were also included.

FARM SERVICE, 1944

	Number of Customers	Kilowatt Hours	Revenue	Kw. Hrs. per Customer	Average Annual Bill <sup>(1)</sup>	Revenue per Kw.Hr. <sup>(1)</sup>	P.C. of Dominion Farm Service Consumption
			\$		\$	¢	%
Pr. Edward Island	929	529,208	39,718	570	42.75	7.5	0.36
Nova Scotia	8,838	4,277,462	262,048	484	29.65	6.1	2.91
New Brunswick	6,815	1,832,898	163,441	269	23.98	8.9	1.25
Quebec	32,711	15,675,628	702,023	479	21.45	4.5	10.67
Ontario	62,303	117,169,762	2,469,124	1,881	39.33	2.1	79.75
Manitoba	1,070	1,026,447	42,552	959	39.77	4.1	0.70
Saskatchewan	293	227,505	22,073	776	75.33	9.7	0.15
Alberta	1,244	1,665,071	94,635	1,338	76.07	5.7	1.13
British Columbia	2,406	4,525,990	127,509	1,881	53.00	2.8	3.08
Canada	116,609	146,929,971	3,923,123	1,260	35.34	2.7	100.00

(1) Federal, Provincial and Municipal taxes on the electricity purchased are not included.



TABLE 9 -- POLE LINE MILEAGE

Transmission and distribution lines are combined in this table and a division has been made showing the mileage of steel **towers** and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileage.

TABLES 10-11-12-13 -- EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 146,779,000 kilowatt hours being generated during the year by this auxiliary equipment.

TABLE 14 -- ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the rated capacity of a 1,000 Kv.A. dynamo for a year would be 8,730,000 kilowatt hours, but, if installed on November 30, its maximum capacity would be only 744,000 kilowatt hours at unity power factor. Consequently, the ratios are directly

comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. In some cases this changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly, especially up to 1937. Since the outbreak of the war the supply of surplus power has been greatly reduced and with war industries working twenty four hours per day the supply of off-peak power has also been reduced so that sales of secondary power have shown a steady decrease up to the middle of 1943 when they began to increase again and continued to increase throughout 1944 and also 1945.

#### TABLE 15 - FUEL

Fuel used was almost exclusively local coal, oil and gas and stations in Nova Scotia, Saskatchewan and British Columbia were the largest users. The value of Canadian bituminous coal was 47 per cent of the total, lignite coal accounted for 12 per cent, fuel oil and diesel oil for 33 per cent and gasoline gas wood, etc., accounted for the remainder.

#### DOMESTIC SERVICE

In the following table data on domestics are brought together and analysed. As might be expected the provinces with relatively high percentages of rural populations, Prince Edward Island, Saskatchewan and Alberta, show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of the use. Manitoba's low unit cost and high average consumption are influenced by flat rate water heaters in Winnipeg which induce high consumption per customer. There was also a large number of flat rate water heaters in Ontario. Also, where hydro-electric power is plentiful the rates are generally low and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and large consumption by pulp and paper, aluminium and other electric metallurgical plants.

Domestic customers in Ontario used almost 59 per cent of the total power used by all domestic customers in Canada **but** the population of this province was almost a third of the total for the Dominion.

These bills do not include federal, provincial and municipal sales taxes paid by the consumers.

(1) DOMESTIC SERVICE, 1944

Province	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	P.C. of total Provincial Consumption	P.C. of Dominion Dom. Service Consumption
P. E. Island	6,103	6.71	37.78	5.04	750	50	28.7	0.1
Nova Scotia	79,904	13.06	30.53	3.84	795	104	10.9	2.1
New Brunswick	58,860	12.74	30.03	4.48	670	85	7.9	1.3
Quebec	530,396	15.15	21.31	2.53	841	127	2.5	14.6
Ontario	813,356	20.51	28.57	1.30	2,198	451	13.7	58.7
Manitoba	92,073	12.58	42.05	.99	4,234	533	17.5	12.8
Saskatchewan	58,089	6.87	41.28	4.55	908	62	21.6	1.7
Alberta	81,652	9.98	33.04	4.74	698	70	10.2	1.9
B.C. & Yukon	186,019	19.60	28.82	2.60	1,109	217	7.8	6.8
CANADA	1,906,452	15.92	27.96	1.75	1,598	254	8.0	100.0

(1) Includes farm customers.



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TABLE 1 - COMPARATIVE SUMMARY, 1935-1944

PRINCIPAL DATA BY CLASS OF STATION	1944	1943	1942	1941	1940
<b>ELECTRIC POWER PLANTS</b>					
Total .....	626	622	616	607	602
Hydraulic .....	320	322	320	313	313
Fuel .....	306	300	296	294	289
Commercial .....	424	425	428	424	421
Municipal .....	202	197	188	183	181
<b>CAPITAL</b>					
Total .....	Data not collected in 1944	1,778,224,640	1,747,891,798	1,641,460,451	1,615,438,140
Commercial .....		1,149,225,710	1,127,978,332	1,054,714,025	1,049,506,904
Municipal .....		628,998,930	619,913,466	586,746,426	565,931,236
Generating .....		1,584,624,501	1,559,495,388	1,459,900,540	1,440,026,870
Non-generating .....		193,600,139	188,396,410	181,559,911	175,411,270
<b>REVENUE (1)</b>					
Total .....	215,246,391	204,801,508	203,835,365	186,018,040	166,228,773
Commercial .....	104,986,232	124,730,993	124,611,713	111,851,778	99,887,052
Municipal .....	110,260,159	80,070,515	79,223,652	74,166,262	66,341,721
Generating .....	185,574,224	175,217,757	173,916,640	157,283,409	139,673,392
Non-generating .....	29,672,167	29,583,751	29,918,725	28,734,631	26,555,381
<b>EXPENSES (2)</b>					
Total .....	131,289,947	135,555,469	132,581,418	117,758,977	105,044,158
Commercial .....	60,470,374	72,579,621	71,133,382	60,561,621	51,990,160
Municipal .....	70,819,573	62,975,848	61,448,036	57,197,356	53,053,998
Generating .....	79,913,496	81,500,674	80,171,586	69,148,513	60,752,761
Non-generating .....	51,376,451	54,054,795	52,409,832	48,610,464	44,291,397
<b>POLE LINE MILEAGE</b>					
Total .....	80,073	78,063	77,909	77,253	75,050
Commercial .....	30,877	32,085	31,847	31,442	30,933
Municipal .....	49,196	45,978	46,062	45,811	44,117
Generating .....	63,665	61,710	61,927	61,495	59,676
Non-generating .....	16,408	16,353	15,982	15,758	15,374
<b>CUSTOMERS</b>					
Total .....	2,238,023	(4) 2,164,861	2,125,304	2,081,270	2,006,508
Domestic service (3) .....	1,906,452	(4) 1,848,080	1,803,708	1,755,917	1,686,388
Commercial light .....	273,451	259,640	264,706	268,977	265,175
Power (small) .....	45,284	44,948	44,813	44,071	43,138
Power (large) .....	10,376	9,772	9,673	9,934	9,490
Street lighting .....	2,460	2,421	2,404	2,371	2,317
Commercial stations .....	753,239	(4) 1,005,316	985,059	954,906	926,093
Municipal stations .....	1,484,784	1,159,545	1,140,245	1,126,364	1,088,415
Generating stations .....	1,195,778	1,129,272	1,103,539	1,079,233	1,032,433
Non-generating stations .....	1,042,245	(4) 1,035,589	1,021,765	1,002,037	982,075
<b>ELECTRIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	40,598,779	40,479,593	37,355,179	33,317,663	30,109,288
Commercial .....	25,688,580	31,082,239	28,177,387	24,793,715	22,287,270
Municipal .....	14,910,199	9,397,354	9,177,792	8,523,948	7,822,013
Exports to the United States ..... (thousands) Kw.h.	2,585,311	2,545,038	2,453,739	2,354,229	2,132,129
Imports from the United States .... (thousands) Kw.h.	14,097	599	594	670	655
<b>EQUIPMENT IN GENERATING STATIONS (Main Plant Only)</b>					
Total Primary Power .....	9,713,791	9,602,794	8,613,696	8,157,585	7,935,867
Total in commercial stations .....	6,373,523	7,239,936	6,269,386	5,917,160	5,708,664
Total in municipal stations .....	3,340,268	2,362,858	2,344,310	2,240,425	2,227,203
Total Secondary Power .....	8,073,884	7,982,027	7,256,927	6,851,785	6,691,211
Total in commercial stations .....	5,290,874	6,074,695	5,366,769	5,054,727	4,906,268
Total in municipal stations .....	2,782,990	1,907,132	1,890,158	1,797,058	1,784,943
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	185,117	194,822	194,966	194,651	194,914
Secondary power .....	157,866	166,010	166,236	166,021	166,367

- (1) Cost of power interchanged between stations excluded from revenue of purchasing stations (see page ).  
 (2) Includes wages, cost of power, fuel and taxes, but not other expenses.  
 (3) Farm service is included with domestic service.  
 (4) Revised.



TABLEAU 1 - SOMMAIRE COMPARATIF, 1935-1944

1939	1938	1937	1936	1935	DONNEES PRINCIPALES PAR CLASSES D'USINES
					<u>USINES ELECTRIQUES</u>
611	599	568	561	566	Total
513	513	514	512	516	Hydrauliques
298	276	254	249	250	A combustible
427	406	389	390	397	Commerciales
184	183	179	171	169	Municipales
					<u>CAPITAL</u>
1,564,603,211	1,545,416,592	1,497,330,231	1,483,116,649	1,459,821,168	Total
1,014,704,665	1,002,891,485	979,950,159	957,466,865	962,263,142	Commerciales
549,898,546	542,525,107	517,380,072	525,849,784	497,558,026	Municipales
1,396,838,921	1,377,120,289	1,337,399,695	1,326,820,103	1,307,710,173	Génératrices
167,764,290	168,296,303	159,930,536	156,296,546	152,110,995	Non-génératrices
					<u>RECETTES (1)</u>
151,880,969	144,351,627	145,546,643	135,865,173	127,177,954	Total
92,535,049	87,697,078	85,283,008	78,882,504	79,541,554	Commerciales
59,345,920	56,634,549	58,263,635	56,982,669	47,836,400	Municipales
127,483,222	120,784,939	120,465,135	112,776,015	105,638,584	Génératrices
24,397,747	23,546,688	23,081,508	23,089,158	21,539,370	Non-génératrices
					<u>DEPENSES (2)</u>
91,982,372	87,364,340	84,185,082	77,939,050	79,625,134	Total
42,471,554	41,067,998	41,132,931	36,530,527	33,836,054	Commerciales
49,510,838	46,296,342	43,052,151	41,408,523	45,789,080	Municipales
51,570,137	48,946,422	46,114,640	41,790,019	43,904,771	Génératrices
40,412,235	39,417,918	38,070,442	36,549,031	35,720,363	Non-génératrices
					<u>LIGNES SUR POTEAUX</u>
72,132	66,977	63,035	59,436	57,602	Total
30,288	29,355	28,332	27,271	26,520	Commerciales
41,844	37,622	34,703	32,165	31,082	Municipales
57,084	52,373	48,866	45,099	43,372	Génératrices
15,048	14,604	14,169	14,337	14,230	Non-génératrices
					<u>ABONNES</u>
1,941,663	1,873,621	1,805,995	1,740,793	1,694,703	Total
1,623,672	1,559,394	1,500,128	1,443,059	1,401,983	Service domestique (3)
262,590	259,693	252,305	245,144	240,468	Eclairage commercial
43,896	41,999	41,415	40,742	40,292	Force motrice (petite)
9,267	10,152	10,066	9,840	9,989	Force motrice (grosse)
2,238	2,183	2,081	2,008	1,971	Eclairage des rues
889,418	859,506	833,711	802,676	779,400	Usines commerciales
1,052,245	1,014,115	972,284	958,117	915,303	Usines municipales
998,067	954,797	916,648	866,407	837,278	Usines génératrices
943,596	918,824	889,347	874,586	857,425	Usines non-génératrices
					<u>ENERGIE ELECTRIQUE GENeree</u>
28,338,030	26,154,160	27,687,645	25,402,282	23,283,033	Total Kw. heures générés (milliers)
21,290,930	19,488,323	20,315,627	18,515,225	17,767,949	Commerciale
7,047,100	6,665,857	7,372,018	6,887,057	5,515,084	Municipale
					Exportations d'électricité aux Etats-Unis ..... (milliers) Kw.h.
1,908,756	1,822,103	1,843,227	1,573,980	1,359,021	Importations d'électricité des Etats-Unis ..... (milliers) Kw.h.
666	624	1,317	765	656	
					<u>MACHINERIE DANS LES USINES GENERATRICES</u>
7,607,122	7,476,976	7,342,085	7,119,272	7,104,142	(Usines principales seulement)
5,385,632	5,300,183	5,203,529	5,012,968	5,138,200	Total force motrice primaire ..... H.P.
2,221,490	2,176,793	2,138,556	2,106,304	1,965,942	Total dans les usines commerciales .... H.P.
6,435,416	6,327,868	6,206,465	6,025,999	5,895,984	Total dans les usines municipales ..... H.P.
4,654,745	4,586,273	4,496,443	4,340,869	4,317,823	Total force motrice secondaire ..... Kw.A.
1,780,671	1,741,595	1,710,622	1,685,130	1,576,161	Total dans les usines commerciales ... Kw.A.
					Total dans les usines municipales .... Kw.A.
					<u>OUTILLAGE D'USINES AUXILIAIRES</u>
194,139	195,628	197,350	200,621	206,831	Force motrice primaire ..... H.P.
165,785	166,660	167,839	172,327	176,890	Force motrice secondaire ..... Kw.A.

(1) Le coût de l'énergie échangée entre stations est exclu du revenu des stations en faisant l'achat (Voir p. ).

(2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

(3) L'éclairage des fermes est inclus dans l'éclairage domestique.

(4) Révisé.



TABLE 2 - DOMESTIC SERVICE, 1935 - 1944

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour	
Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure	
		(000)	\$	kw. hrs.	\$	\$	
CANADA .....	1935	1,401,983	1,769,848	36,773,643	1,262	26.23	2.08
	1936	1,443,059	1,887,116	38,399,102	1,308	26.61	2.03
	1937	1,500,128	2,007,433	39,253,133	1,338	26.17	1.96
	1938	1,559,394	2,172,500	41,302,107	1,393	26.49	1.90
	1939	1,623,672	2,310,891	43,793,482	1,423	26.97	1.90
	1940	1,686,588	2,436,572	46,444,357	1,445	27.54	1.91
	1941	1,755,917	2,582,405	48,683,162	1,471	27.73	1.89
	1942	1,803,708	2,716,895	50,706,757	1,506	28.11	1.87
	1943	1,852,367	2,843,612	51,307,781	1,535	27.70	1.80
	1944	1,906,452	3,046,980	53,311,353	1,598	27.96	1.75
Change (Changement) 1935 - 1944							
Amount (Volume)	504,469	1,277,132	16,537,710	336	1.73	- 0.33	
Per cent (p.c.)	35.98	72.16	44.97	26.62	6.60	- 15.87	
PRINCE EDWARD ISLAND .....	1935	4,199	1,722	134,740	410	32.08	7.82
	1936	4,379	2,035	145,442	465	33.21	7.15
	1937	4,545	2,232	152,660	491	33.59	6.84
	1938	4,799	2,579	150,994	537	31.46	5.85
	1939	5,067	2,908	163,226	574	32.21	5.61
	1940	5,227	3,076	172,343	588	33.05	5.61
	1941	5,531	3,483	183,090	630	33.10	5.26
	1942	5,606	3,580	196,446	689	35.04	5.49
	1943	5,715	3,695	217,914	682	38.13	5.59
	1944	6,103	4,579	230,596	750	37.78	5.04
Change (Changement) 1935 - 1944							
Amount (Volume)	1,904	2,857	95,856	340	5.70	- 2.78	
Per cent (p.c.)	45.34	165.91	71.14	8.29	1.78	- 35.55	
NOVA SCOTIA .....	1935	52,300	25,337	1,330,632	496	25.14	5.13
	1936	54,763	29,212	1,457,054	533	26.31	4.99
	1937	58,165	31,692	1,535,298	545	26.40	4.84
	1938	58,556	35,307	1,595,086	603	27.24	4.52
	1939	62,034	39,084	1,709,507	630	27.30	4.37
	1940	65,730	43,277	1,877,812	656	28.54	4.34
	1941	69,997	48,357	2,065,057	691	29.50	4.27
	1942	72,592	50,877	2,166,648	715	29.85	4.18
	1943	x 75,957	57,324	2,156,852	x 755	x 28.40	3.76
	1944	79,904	63,516	2,439,703	795	30.53	3.94
Change (Changement) 1935 - 1944							
Amount (Volume)	27,604	37,579	1,109,071	299	3.99	- 1.29	
Per cent (p.c.)	52.78	144.89	83.35	6.02	2.00	- 25.15	
NEW BRUNSWICK .....	1935	36,602	20,537	994,895	563	27.18	4.83
	1936	36,660	22,949	1,068,038	570	27.63	4.84
	1937	41,604	23,488	1,117,953	565	26.87	4.76
	1938	43,556	25,567	1,232,937	582	28.31	4.86
	1939	46,485	26,389	1,307,772	581	28.13	4.85
	1940	50,681	29,588	1,413,237	580	27.38	4.81
	1941	52,831	31,234	1,435,015	591	27.16	4.59
	1942	54,529	34,096	1,563,334	636	28.97	4.51
	1943	56,239	35,294	1,661,550	628	29.34	4.71
	1944	58,860	39,441	1,767,380	670	30.03	4.48
Change (Changement) 1935 - 1944							
Amount (Volume)	22,258	18,844	772,485	107	2.85	- 0.35	
Per cent (p.c.)	60.81	91.49	77.64	19.01	10.49	- 7.25	
QUEBEC .....	1935	378,388	226,285	7,297,458	598	19.29	3.22
	1936	390,711	241,799	7,723,973	619	19.77	3.19
	1937	407,155	265,405	8,108,946	652	19.92	3.06
	1938	421,178	287,107	8,669,054	682	20.38	3.02
	1939	434,825	311,420	9,167,384	716	21.08	2.94
	1940	451,791	324,332	9,534,396	717	21.32	2.97
	1941	473,547	341,647	10,100,300	724	21.33	2.95
	1942	488,014	368,173	10,765,987	754	22.10	2.93
	1943	507,765	398,305	10,791,660	784	21.25	2.71
	1944	530,396	446,142	11,304,901	841	21.31	2.53
Change (Changement) 1935 - 1944							
Amount (Volume)	152,008	212,857	4,007,443	243	2.02	- 0.69	
Per cent (p.c.)	40.17	97.16	54.92	40.84	10.47	- 21.43	

x - Revised.

TABLEAU 2 - SERVICE DOMESTIQUE, 1935 - 1944

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	\$
<b>ONTARIO</b> .....						
1935	618,111	1,023,929	17,171,434	1,657	27.78	1.68
1936	634,052	1,098,598	17,716,636	1,733	27.94	1.61
1937	660,262	1,174,358	17,718,464	1,779	26.84	1.51
1938	691,498	1,285,568	18,456,575	1,859	26.69	1.44
1939	719,871	1,374,325	19,657,658	1,909	27.31	1.43
1940	745,396	1,459,233	20,928,097	1,958	28.08	1.43
1941	772,153	1,546,189	21,980,031	2,002	28.47	1.42
1942	787,721	1,623,780	22,807,897	2,061	28.95	1.40
1943	801,430	1,682,562	23,000,644	2,099	28.70	1.37
1944	815,356	1,787,359	23,239,991	2,198	28.57	1.30
Change (Changement) 1935 - 1944						
Amount (Volume)	195,245	763,430	6,068,557	541	.79	- 0.38
Per cent (p.c.)	31.59	74.56	35.34	32.65	2.84	- 22.62
<b>MANITOBA</b> .....						
1935	74,538	289,314	2,914,963	3,881	39.11	1.01
1936	75,858	296,110	3,029,140	3,903	39.93	1.02
1937	76,516	303,271	3,122,397	3,963	40.81	1.03
1938	77,762	311,793	3,223,605	4,010	41.45	1.03
1939	81,091	320,827	3,311,662	3,956	40.84	1.03
1940	83,404	330,269	3,423,312	3,960	41.04	1.04
1941	85,106	343,041	3,472,277	4,031	40.80	1.01
1942	87,615	355,928	3,570,492	4,062	40.75	1.00
1943	88,528	374,169	3,712,351	4,226	41.93	.99
1944	92,073	389,865	3,871,419	4,234	42.05	.99
Change (Changement) 1935 - 1944						
Amount (Volume)	17,535	100,551	956,456	353	2.94	- .02
Per cent (p.c.)	23.52	34.75	32.81	9.10	7.52	- 1.98
<b>SASKATCHEWAN</b> .....						
1935	45,451	35,402	1,795,683	779	39.51	5.07
1936	46,478	36,044	1,851,794	776	39.84	5.14
1937	46,630	37,234	1,852,503	798	39.73	4.98
1938	48,060	39,077	1,903,731	813	39.61	4.87
1939	49,980	41,198	2,004,433	824	40.10	4.87
1940	51,425	43,406	2,093,205	844	40.70	4.82
1941	52,695	45,448	2,173,255	862	41.24	4.78
1942	54,132	46,858	2,173,896	866	40.16	4.64
1943	55,500	48,996	2,257,885	883	40.68	4.61
1944	56,089	52,724	2,397,702	908	41.28	4.55
Change (Changement) 1935 - 1944						
Amount (Volume)	12,638	17,322	602,019	129	1.77	- .52
Per cent (p.c.)	27.81	48.92	33.53	16.56	4.48	- 10.26
<b>ALBERTA</b> .....						
1935	58,127	31,656	1,714,128	544	29.49	5.42
1936	59,600	33,481	1,789,422	562	30.02	5.34
1937	61,121	35,339	1,865,520	578	30.52	5.28
1938	63,030	38,089	1,985,226	604	31.46	5.21
1939	68,267	42,210	2,145,093	618	31.42	5.08
1940	69,397	45,110	2,275,091	650	32.78	5.04
1941	72,422	47,572	2,393,189	657	33.05	5.03
1942	74,814	49,089	2,393,073	656	31.99	4.87
1943	77,810	52,100	2,514,031	670	32.31	4.83
1944	81,652	56,977	2,698,155	698	33.04	4.74
Change (Changement) 1935 - 1944						
Amount (Volume)	23,525	25,341	984,027	154	3.55	- 0.68
Per cent (p.c.)	40.47	80.10	57.41	28.31	12.04	- 12.55
<b>BRITISH COLUMBIA AND YUKON</b> .....						
1935	134,267	115,026	3,419,710	857	25.47	2.97
1936	138,558	127,788	3,617,603	922	26.11	2.83
1937	144,130	134,414	3,779,392	933	26.22	2.81
1938	150,955	147,613	4,086,919	978	27.07	2.77
1939	156,052	151,930	4,320,747	974	27.73	2.85
1940	163,277	158,781	4,626,562	972	28.34	2.81
1941	171,635	174,454	4,880,948	1,016	28.44	2.80
1942	178,685	182,914	5,049,084	1,024	28.26	2.76
1943	179,136	190,967	4,994,894	1,066	27.88	2.62
1944	186,019	206,377	5,361,506	1,109	28.82	2.60
Change (Changement) 1935 - 1944						
Amount (Volume)	51,752	91,351	1,941,796	252	3.35	- 0.37
Per cent (p.c.)	38.54	79.42	56.78	29.40	13.15	- 12.46



TABLE 3 - ELECTRIC POWER PLANTS, 1944

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total number of generating stations</u> .....	626	9	49	14
Per cent of total for Canada .....	100.00	1.44	7.83	2.24
<u>COMMERCIAL</u> .....	424	7	22	8
Hydraulic .....	205	4	13	5
Fuel .....	219	3	9	3
<u>MUNICIPAL</u> .....	202	2	27	6
Hydraulic .....	115	-	20	3
Fuel .....	87	2	7	3
With water wheels and turbines .....	320	4	33	8
With steam engines only .....	22	-	1	1
With steam turbines only .....	25	1	7	1
With gas or oil engines only .....	254	4	7	3
With both steam engines and turbines .....	4	-	1	1
With both steam and gas or oil engines .....	1	-	-	-
With alternating current dynamos only .....	484	9	49	12
With direct current dynamos only .....	140	-	-	1
With both alternating and direct current dynamos..	2	-	-	1
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 395	7	20	15
Number generating power .....	292	5	13	7
Number buying power for redistribution .....	102	2	7	8
<u>MUNICIPALITIES</u> .....	X 470	2	23	10
Number generating power .....	82	2	8	2
Number buying power for redistribution .....	386	-	15	8
<u>AUXILIARY PLANTS</u> .....	60	1	7	2
To hydraulic stations .....	45	1	3	-
To non-generating stations .....	15	-	4	2

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.



TABEAU 3 - USINES GENERATRICES, 1944

Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia & Yukon	
101	134	22	145	79	73	<u>Nombre d'usines génératrices</u>
16.13	21.41	3.51	23.16	12.62	11.66	Pourcentage du total pour le Canada
78	60	14	104	68	63	<u>COMMERCIALES</u>
76	57	4	-	4	42	Hydrauliques
2	3	10	104	64	21	A combustible
23	74	8	41	11	10	<u>MUNICIPALES</u>
20	65	2	-	-	5	Hydrauliques
3	9	6	41	11	5	A combustible
96	122	6	-	4	47	Avec roues et turbines hydrauliques
1	5	1	1	7	5	Avec machines à vapeur seulement
1	-	1	7	4	3	Avec turbines à vapeur seulement
3	7	13	136	63	17	Avec moteurs à gaz ou à pétrole seulement
-	-	-	1	1	-	Avec machines et turbines à vapeur à la fois
-	-	1	-	-	-	Avec machines à vapeur à gaz et à pétrole
100	132	20	53	40	69	Avec dynamos à courant alternatif seulement
1	2	2	92	38	4	Avec dynamos à courant direct seulement
-	-	-	-	1	-	Avec dynamos à courant alternatif et direct
62	61	16	87	70	56	<u>USINES COMMERCIALES</u>
38	36	10	85	58	40	Nombre d'usines génératrices
24	25	6	2	12	16	Nombre d'usines achetant de l'électricité pour la revendre
32	330	8	30	16	17	<u>MUNICIPALITES</u>
13	15	4	22	9	7	Nombre d'usines génératrices
19	315	4	8	7	10	Nombre d'usines achetant de l'électricité pour la revendre
9	9	3	-	8	21	<u>USINES AUXILIAIRES</u>
8	6	2	-	8	17	Aux usines hydrauliques
1	3	1	-	-	4	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.

TABLE 5 - REVENUE, 1944 (1)

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	215,246,391	544,797	8,571,952	/ 5,253,288	/ 87,264,980
For domestic service .....	53,511,353	230,596	2,439,705	1,767,380	11,304,901
For commercial light .....	30,505,456	143,278	1,642,080	878,958	8,592,547
For power (small) .....	11,546,203	48,709	851,732	337,429	2,648,791
For power (large) .....	115,309,675	102,146	3,432,732	/ 2,126,647	65,939,233
For street lighting .....	4,573,704	20,068	205,705	142,874	979,511
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	104,986,232	382,011	6,028,955	2,749,776	56,237,596
Non-generating .....	7,440,645	1,488	747,976	524,456	159,236
Generating .....	97,545,587	380,523	5,280,979	2,225,320	56,078,358
Hydraulic .....	88,464,856	14,431	1,195,574	1,565,188	56,035,800
Fuel .....	9,060,731	366,092	4,087,405	660,132	42,555
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	110,260,159	162,786	2,542,937	2,503,512	31,027,394
Non-generating .....	22,231,522	-	362,752	560,389	650,382
Generating .....	88,028,637	162,786	2,180,245	1,937,123	30,377,011
Hydraulic .....	78,669,809	-	1,789,804	89,740	30,266,964
Fuel .....	9,358,828	162,786	390,441	1,847,383	110,047
Revenue of non-generating stations .....	29,672,167	1,488	1,110,728	1,090,845	809,621
Revenue of generating stations .....	185,574,224	543,309	7,461,224	4,162,443	86,455,369
Revenue of hydraulic stations .....	167,154,665	14,431	2,983,378	1,654,928	86,302,764
Revenue of fuel stations .....	18,419,559	528,878	4,477,846	2,507,515	152,605
Average revenue per H.P. of primary power .....	22.16	59.12	41.87	34.73	16.16
Average revenue per H.P. in main and auxiliary plants ...	21.74	58.27	41.35	34.12	16.03
Average revenue per Kw.A. of dynamo capacity .....	26.66	78.44	50.53	40.64	19.01
Average revenue per Kw.A. in main and auxiliary plants ..	26.15	77.91	49.96	49.01	18.94
Average revenue per kilowatt hour consumed ..... Cents	.53	3.41	1.45	.99	.31
Average revenue per domestic service customer .....	27.96	37.78	30.58	30.03	21.53
Average revenue per commercial light customer .....	111.56	119.40	145.23	124.43	115.09
Average revenue per small power customer .....	254.97	468.56	342.47	303.03	252.94
Average revenue per large power customer .....	11,113.11	11,349.55	16,424.55	8,715.77	41,954.87
Average revenue per kilowatt hour - domestic and farm service ..... Cents	1.75	5.04	3.84	4.48	2.53
Average revenue per kilowatt hour - commercial light ..... Cents	2.15	4.48	3.72	3.15	2.31

/ Affected by power purchased from other province.

X Adjusted for power purchased from Quebec plants.

(1) Gross revenue less cost of power interchanged between stations.

TABLEAU 5 - RECETTES, 1944 (1)

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
483,411,485	10,923,576	6,753,716	8,801,413	18,149,373	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
25,239,991	3,871,419	2,537,702	2,698,155	5,381,506	Pour éclairage domestique
9,304,036	2,056,262	1,973,795	2,265,860	3,848,640	Pour éclairage commercial
4,540,555	458,246	932,803	858,523	869,413	Pour force motrice (petite)
44,515,655	4,290,690	1,151,557	2,695,642	7,683,573	Pour force motrice (grosse)
2,011,248	246,959	297,859	283,233	386,241	Pour éclairage des rues
14,065,070	5,710,643	2,518,627	4,123,184	17,077,299	<u>RECETTES DES USINES COMMERCIALES</u>
3,604,372	259,996	194,187	101,201	4,687,007	Non-génératrices
10,460,698	5,450,647	2,324,440	4,021,983	12,390,292	Génératrices
10,436,806	5,358,168	-	3,025,409	11,923,133	Hydrauliques
23,892	92,479	2,324,440	996,574	467,159	A combustible
69,346,415	5,212,933	4,235,089	4,678,229	1,072,074	<u>RECETTES DES USINES MUNICIPALES</u>
16,201,606	1,403,220	876,732	1,588,648	629,601	Non-génératrices
53,144,809	3,809,713	3,358,357	3,089,581	442,473	Génératrices
53,054,801	3,635,201	-	-	306,760	Hydrauliques
90,008	174,512	3,358,357	3,089,581	135,713	A combustible
19,905,978	1,663,216	1,070,919	1,689,849	5,316,608	Recettes des usines non-génératrices
63,605,507	9,260,360	5,682,797	7,111,564	12,832,765	Recettes des usines génératrices
63,491,607	8,993,369	-	3,025,409	12,229,893	Recettes des usines hydrauliques
113,900	266,991	5,682,797	4,086,155	602,872	Recettes des usines à combustible
X 24.10	21.34	39.97	44.45	24.36	Moyenne de recettes par H.P. de machinerie primaire
X 23.82	20.15	39.97	40.57	23.29	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
X 30.69	26.60	47.26	53.26	30.60	Moyenne de recettes par Kv.A. de capacité de dynamos
X 30.32	24.90	47.26	48.38	28.59	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
.53	.49	2.77	1.57	.69	Moyenne de recettes par Kw. heure ..... (cents)
28.57	42.05	41.28	33.94	28.82	Moyenne de recettes par abonnés d'éclairage domestique
92.47	109.51	123.00	131.51	136.04	Moyenne de recettes par abonnés d'éclairage commercial
317.21	126.48	319.34	150.25	191.54	Moyenne de recettes par abonnés pour petite force motrice
13,865.97	1,201.20	9,758.96	4,576.64	8,397.47	Moyenne de recettes par abonnés pour grosse force motrice
1.30	.99	4.55	4.74	2.60	Moyenne de recettes par Kw. heure - service domestique et de ferme ..... (cents)
1.43	1.93	4.30	3.89	2.97	Moyenne de recettes par Kw. heure - service commercial (cents)

\* Affecté par énergie achetée d'une autre province.

X Ajusté pour achats de courant des usines du Québec.

(1) Revenu brut moins le coût de l'énergie échangée entre stations.



TABLE 6 - <sup>4</sup> EXPENSES, 1944

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>TOTAL EXPENSES</u> .....	131,289,947	257,528	7,887,018	2,779,993	30,740,494
Per cent of total for Canada .....	100.00	0.20	6.01	2.12	23.41
Salaries and wages .....	36,945,296	91,128	1,688,210	738,235	10,523,913
Fuel .....	5,488,483	145,835	1,289,946	664,798	50,490
Taxes (x) .....	17,861,743	18,685	1,472,835	258,408	8,539,477
Cost of power .....	70,994,425	1,880	5,436,027	1,118,552	11,626,614
<u>TOTAL FOR COMMERCIAL STATIONS</u> .....	60,470,374	207,989	6,248,461	1,408,415	22,556,650
Salaries and wages .....	16,809,429	75,789	1,212,473	383,440	7,887,786
Fuel .....	5,430,267	111,635	1,156,934	222,204	7,204
Taxes .....	15,913,064	18,685	1,432,283	254,795	7,718,532
Cost of power .....	24,317,614	1,880	2,446,771	607,976	6,943,128
Non-generating stations .....	12,713,986	1,880	1,008,757	882,213	101,525
Generating stations .....	47,756,388	206,109	5,239,704	586,202	22,455,125
Hydraulic stations .....	40,432,274	737	714,240	190,615	22,435,051
Fuel stations .....	7,324,114	205,372	4,525,464	395,587	20,074
<u>TOTAL FOR MUNICIPAL STATIONS</u> .....	70,819,573	49,539	1,638,557	1,311,578	8,183,844
Salaries and wages .....	20,135,867	15,339	475,737	354,795	2,636,127
Fuel .....	2,058,216	34,200	133,012	442,594	43,286
Taxes .....	1,948,679	-	40,552	3,613	820,945
Cost of power .....	46,676,811	-	989,256	510,576	4,683,486
Non-generating stations .....	38,662,465	-	906,163	575,814	522,497
Generating stations .....	32,157,108	49,539	732,394	735,764	7,661,347
Hydraulic stations .....	28,383,800	-	309,327	36,091	7,597,806
Fuel stations .....	3,773,308	49,539	423,067	699,673	63,541
<u>TOTAL EXPENSES FOR NON-GENERATING STATIONS</u> .....	51,376,451	1,880	1,914,920	1,458,027	624,022
Salaries and wages .....	9,277,241	-	351,834	276,614	196,050
Fuel .....	11,514	-	480	-	-
Taxes .....	1,559,674	-	224,139	132,967	8,704
Cost of power .....	40,528,022	1,880	1,338,467	1,048,446	419,268
<u>TOTAL EXPENSES FOR GENERATING STATIONS</u> .....	79,913,496	255,648	5,972,098	1,321,966	30,116,472
Salaries and wages .....	27,668,055	81,128	1,336,376	461,621	10,327,865
Fuel .....	5,476,969	145,835	1,289,466	664,798	50,490
Taxes .....	16,302,069	18,685	1,248,696	125,441	8,530,773
Cost of power .....	30,466,403	-	2,097,560	70,106	11,207,346
Hydraulic stations .....	68,816,074	737	1,023,567	226,706	30,032,857
Fuel stations .....	11,097,422	254,911	4,948,531	1,095,260	83,615

(x) Sales tax not included (see pages

<sup>4</sup> Includes only the four items listed

TABLEAU 6 - <sup>4</sup> DEPENSES, 1944

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
64,063,052	3,369,582	3,637,878	3,987,659	14,566,743	<u>TOTAL DES DEPENSES</u>
48.80	2.56	2.77	3.04	11.09	Pourcentage du total pour le Canada
15,622,851	2,279,382	1,109,327	1,312,389	3,579,861	Salaires et gages
36,250	81,494	1,203,011	764,313	1,252,346	Combustible
2,871,361	239,117	487,511	698,867	3,275,482	Taxes (x)
45,532,590	769,589	838,029	1,212,090	6,459,054	Achat d'énergie électrique
11,281,340	1,500,629	1,483,637	1,791,353	13,931,900	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,918,036	898,786	439,608	679,458	3,314,053	Salaires et gages
18,262	15,715	451,810	219,424	1,227,079	Combustible
2,079,573	134,502	428,200	571,019	3,275,475	Taxes
7,265,469	451,626	164,019	321,452	6,115,293	Achat d'énergie électrique
3,272,076	485,185	146,203	43,222	6,772,925	Usines non-génératrices
8,009,264	1,015,444	1,337,434	1,748,131	7,158,975	Usines génératrices
7,995,241	971,691	-	1,226,743	6,897,956	Usines hydrauliques
14,023	43,753	1,337,434	521,388	261,019	Usines à combustible
52,781,712	1,868,953	2,154,241	2,196,306	684,843	<u>TOTAL POUR LES USINES MUNICIPALES</u>
13,704,815	1,380,596	669,719	632,931	285,808	Salaires et gages
17,988	65,779	751,201	544,889	25,267	Combustible
791,788	104,615	59,311	127,848	7	Taxes
38,267,121	317,963	674,010	890,638	343,761	Achat d'énergie électrique
33,449,526	681,202	796,905	1,214,848	515,510	Usines non-génératrices
19,332,186	1,187,751	1,357,336	981,458	119,333	Usines génératrices
19,297,353	1,076,737	-	-	66,486	Usines hydrauliques
34,833	111,014	1,357,336	981,458	52,847	Usines à combustible
36,721,602	1,166,387	943,108	1,258,070	7,288,435	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
6,112,810	391,864	128,866	241,705	1,577,498	Salaires et gages
6,572	-	-	-	4,462	Combustible
272,221	14,487	85,559	103,854	717,743	Taxes
30,329,999	760,036	728,683	912,511	4,988,732	Achat d'énergie électrique
27,341,450	2,203,195	2,694,770	2,729,589	7,278,308	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
9,510,041	1,887,518	980,461	1,070,684	2,002,363	Salaires et gages
29,678	81,494	1,203,011	764,313	1,247,884	Combustible
2,599,140	224,630	401,952	595,013	2,557,739	Taxes
5,202,591	9,553	109,346	299,579	1,470,322	Achat d'énergie électrique
7,292,594	2,048,428	-	1,226,743	6,964,442	Usines hydrauliques
48,856	154,767	2,694,770	1,502,846	313,866	Usines à combustible

<sup>4</sup> Ne comprend que les quatre item énumérés.

(x) Taxe des ventes non comprises (Voir p.

TABLE 7 - EMPLOYEES, 1944

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	19,770	76	1,043	677	5,680
Per cent of total for Canada .....	100.00	.38	5.28	3.42	28.74
Officers, clerks, other salaried employees, etc. ..	7,129	30	372	197	1,290
Employees on wages .....	12,641	46	671	480	4,390
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	9,185	61	674	266	4,249
Officers, clerks, other salaried employees, etc. ..	2,657	24	183	102	980
Employees on wages .....	6,505	37	491	164	3,269
Non-generating .....	1,134	-	134	114	30
Generating .....	8,048	61	540	152	4,219
Hydraulic .....	7,001	1	146	73	4,212
Fuel .....	1,047	60	394	79	7
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	10,588	15	369	411	1,441
Officers, clerks, other salaried employees, etc. ..	4,452	6	189	95	709
Employees on wages .....	6,136	9	180	316	732
Non-generating .....	3,948	-	92	81	102
Generating .....	6,640	15	277	330	1,339
Hydraulic .....	5,614	-	203	14	1,324
Fuel .....	1,026	15	74	316	15
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	5,082	-	226	195	132
Officers, clerks, other salaried employees, etc. ..	2,682	-	95	105	54
Employees on wages .....	2,400	-	131	90	78
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	14,688	76	817	482	5,558
Officers, clerks, other salaried employees, etc. ..	4,447	30	277	92	1,635
Employees on wages .....	10,241	46	540	390	3,923
Hydraulic .....	12,615	1	349	87	5,536
Fuel .....	2,073	75	468	395	22



TABEAU 7 - EMPLOYES, 1944

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
7,568	1,373	699	785	1,859	<u>TOTAL DU PERSONNEL OCCUPE</u>
38.28	6.95	3.54	3.97	9.40	Pourcentage du total pour le Canada
3,109	545	194	249	744	Administrateurs, directeurs, commis et tous employés des bureaux
4,459	828	505	536	1,115	Ouvriers et journaliers
997	500	318	434	1,683	<u>PERSONNEL DES USINES COMMERCIALES</u>
264	220	77	132	695	Administrateurs, directeurs, commis et tous employés des bureaux
733	280	241	302	988	Ouvriers et journaliers
70	12	48	10	716	Non-génératrices
927	488	270	424	967	Génératrices
921	468	-	283	897	Hydrauliques
6	20	270	141	70	Combustible
6,571	876	381	351	176	<u>PERSONNEL DES USINES MUNICIPALES</u>
2,845	325	117	117	49	Administrateurs, directeurs, commis et tous employés des bureaux
3,726	548	264	234	127	Ouvriers et journaliers
3,086	280	55	133	119	Non-génératrices
3,485	593	326	218	57	Génératrices
3,473	560	-	-	40	Hydrauliques
12	33	326	218	7	Combustible
3,156	292	103	143	835	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,769	94	37	73	455	Administrateurs, directeurs, commis et tous employés des bureaux
1,387	198	66	70	380	Ouvriers et journaliers
4,412	1,081	596	642	1,024	<u>PERSONNEL DES USINES GENERATRICES</u>
1,340	451	157	176	289	Administrateurs, directeurs, commis et tous employés des bureaux
3,072	650	439	466	735	Ouvriers et journaliers
4,394	1,028	-	283	937	Hydrauliques
18	53	596	359	87	Combustible

TABLE C - NUMBER OF CUSTOMERS, 1944

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>NUMBER OF CUSTOMERS</u> .....	2,238,025	7,429	93,986	87,322	610,152
Per cent of total for Canada .....	100.00	.32	4.20	3.81	27.53
Domestic service .....	1,906,452	6,100	79,904	58,860	530,396
Commercial light .....	278,451	1,300	11,507	7,064	72,924
Power (small) .....	15,284	104	2,467	1,106	10,476
Power (large) .....	10,376	9	209	244	1,524
Street lighting .....	2,460	13	79	48	832
<u>COMMERCIAL STATIONS</u> .....	753,239	5,963	65,546	27,377	277,827
Domestic service .....	629,369	4,916	53,916	22,802	238,709
Commercial light .....	102,040	975	7,741	3,787	32,872
Power (small) .....	16,288	73	1,725	685	4,606
Power (large) .....	4,111	8	118	82	863
Street lighting .....	1,451	11	46	21	777
Non-generating .....	210,562	110	25,116	16,759	4,358
Generating .....	542,677	5,873	38,430	10,618	273,469
Hydraulic .....	455,036	385	10,429	2,204	272,946
Fuel .....	87,641	5,488	28,001	8,414	523
<u>MUNICIPAL STATIONS</u> .....	1,484,784	1,446	30,440	39,945	338,325
Domestic service .....	1,277,085	1,187	25,988	36,058	291,687
Commercial light .....	171,411	225	3,566	3,277	40,052
Power (small) .....	28,996	31	762	421	5,870
Power (large) .....	6,265	1	91	162	661
Street lighting .....	1,029	2	33	27	55
Non-generating .....	831,683	-	16,450	16,018	22,131
Generating .....	653,101	1,446	13,990	23,927	316,194
Hydraulic .....	546,167	-	7,531	1,954	314,911
Fuel .....	106,934	1,446	6,459	21,973	1,283
<u>NON-GENERATING STATIONS</u> .....	1,042,245	110	41,566	32,777	26,469
Domestic service .....	891,674	60	35,965	28,293	23,321
Commercial light .....	125,685	29	4,777	3,828	2,605
Power (small) .....	20,869	-	935	484	482
Power (large) .....	3,293	-	56	150	33
Street lighting .....	724	1	33	22	48
<u>GENERATING STATIONS</u> .....	1,195,778	7,319	52,420	34,545	589,663
<u>Hydraulic stations</u> .....	1,001,203	385	17,960	4,158	587,857
Domestic service .....	859,696	299	15,426	3,499	505,678
Commercial light .....	115,927	83	2,044	542	69,939
Power (small) .....	17,839	2	376	87	9,972
Power (large) .....	6,486	-	84	25	1,488
Street lighting .....	1,255	1	30	5	780
<u>Fuel stations</u> .....	194,575	6,934	34,460	30,387	1,806
Domestic service .....	155,082	5,724	28,513	27,068	1,397
Commercial .....	31,839	1,088	4,686	2,694	380
Power (small) .....	6,576	102	1,176	535	22
Power (large) .....	597	9	69	69	3
Street lighting .....	481	11	16	21	4

Average number of domestic service customers  
per 100 of population .....

15.92

6.71

13.06

12.74

15.15

TABLEAU 8 - NOMBRE D'USAGERS, 1944

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
932,084	118,243	77,535	105,398	219,874	<u>NOMBRE D'USAGERS</u>
41.65	5.28	3.47	4.71	9.82	Pourcentage du total pour le Canada
813,356	92,073	58,089	81,652	186,019	Service domestique
100,612	18,777	16,047	17,230	28,290	Eclairage commercial
14,314	3,623	2,921	5,714	4,539	Force motrice (petite)
3,196	3,572	118	569	915	Force motrice (grosse)
606	198	360	213	111	Eclairage des rues
80,637	35,317	29,233	35,892	197,427	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
69,064	26,194	21,462	25,093	167,213	Service domestique
9,956	7,069	6,316	7,975	25,549	Eclairage commercial
1,157	416	1,215	2,361	4,050	Force motrice (petite)
386	1,616	50	267	721	Force motrice (grosse)
74	22	190	196	94	Eclairage des rues
12,910	8,395	3,225	2,543	137,146	Non-génératrices
67,727	26,922	26,008	33,349	60,281	Génératrices
67,340	25,413	-	19,124	57,195	Hydrauliques
387	1,509	26,008	14,225	3,086	Combustible
851,447	82,926	48,302	69,506	22,447	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
744,292	65,879	36,627	56,559	18,806	Service domestique
90,656	11,708	9,731	9,255	2,941	Eclairage commercial
13,157	3,207	1,706	3,553	489	Force motrice (petite)
2,810	1,956	68	322	194	Force motrice (grosse)
532	176	170	17	17	Eclairage des rues
686,785	26,133	16,467	31,303	16,396	Non-génératrices
164,662	56,793	31,835	38,203	6,051	Génératrices
163,096	54,021	-	-	4,654	Hydrauliques
1,566	2,772	31,835	38,203	1,397	Combustible
699,695	34,528	19,692	33,846	153,542	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
603,788	27,018	14,879	27,712	130,623	Service domestique
81,149	6,090	3,731	4,227	19,449	Eclairage commercial
12,257	1,005	993	1,825	2,888	Force motrice (petite)
2,184	243	29	68	530	Force motrice (grosse)
322	172	60	14	52	Eclairage des rues
232,389	83,715	57,843	71,552	66,332	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
230,436	79,434	-	19,124	61,849	Usines hydrauliques
207,959	61,854	-	13,038	51,963	Service domestique
19,250	11,859	-	4,279	7,931	Eclairage commercial
1,958	2,435	-	1,469	1,540	Force motrice (petite)
1,010	3,276	-	231	372	Force motrice (grosse)
279	10	-	107	43	Eclairage des rues
1,953	4,281	57,843	52,428	4,483	Usines à combustible
1,634	3,201	43,210	40,902	3,433	Service domestique
213	828	12,316	8,724	910	Eclairage commercial
99	183	1,928	2,420	111	Force motrice (petite)
2	53	89	290	13	Force motrice (grosse)
5	16	300	92	16	Eclairage des rues

20.51

12.58

6.87

9.98

19.60

Moyenne de consommateurs d'éclairage électrique  
par 100 habitants



TABLE 9 - POLE LINE MILEAGE, 1944

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	80,073	309	4,362	3,460	15,180
Per cent of total for Canada .....	100.00	0.39	5.45	4.32	18.96
Miles of steel towers .....	5,321	-	21	243	1,395
Miles of steel poles .....	445	-	2	120	261
Miles of wooden poles .....	71,575	306	4,326	3,095	12,754
Miles of concrete poles .....	559	-	-	1	-
Miles of underground and submarine cables .....	2,193	3	13	1	770
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	30,877	285	2,188	721	12,351
Non-generating .....	3,337	11	552	259	287
Generating .....	25,540	274	1,636	462	12,044
Hydraulic .....	22,184	24	1,000	260	12,032
Fuel .....	3,356	250	636	202	12
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	49,196	24	2,174	2,759	2,849
Non-generating .....	11,071	-	407	183	185
Generating .....	38,125	24	1,767	2,556	2,664
Hydraulic .....	32,391	-	1,309	27	2,637
Fuel .....	5,734	24	458	2,529	27
<u>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</u> .....	16,408	11	959	442	472
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	63,665	298	3,403	3,018	14,708
Hydraulic .....	54,575	24	2,309	287	14,669
Fuel .....	9,090	274	1,094	2,731	39

TABLE 10 - AUXILIARY PLANT EQUIPMENT, 1944

<u>TOTAL PRIMARY POWER</u> .....	H.P.	185,117	135	2,554	2,725	37,311
Per cent of total for Canada .....		100.00	0.07	1.38	1.47	20.16
Steam reciprocating engines .....	No.	23	1	4	2	1
Total capacity .....	H.P.	9,253	75	1,240	800	60
Steam turbines .....	No.	42	-	1	3	8
Total capacity .....	H.P.	166,909	-	670	1,925	36,224
Gas and oil engines .....	No.	46	1	7	-	5
Total capacity .....	H.P.	8,955	60	644	-	1,027
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	157,866	48	1,948	2,035	33,894
<u>COMMERCIAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	100,656	135	2,314	2,725	3,675
Steam reciprocating engines .....	No.	17	1	4	2	1
Total capacity .....	H.P.	5,578	75	1,240	800	60
Steam turbines .....	No.	31	-	1	3	3
Total capacity .....	H.P.	88,195	-	670	1,925	3,500
Gas and oil engines .....	No.	38	1	4	-	3
Total capacity .....	H.P.	6,863	60	404	-	115
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	82,815	48	1,763	2,035	3,125
<u>MUNICIPAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	84,461	-	240	-	33,636
Steam reciprocating engines .....	No.	6	-	-	-	-
Total capacity .....	H.P.	3,675	-	-	-	-
Steam turbines .....	No.	11	-	-	-	5
Total capacity .....	H.P.	78,714	-	-	-	32,724
Gas and oil engines .....	No.	8	-	3	-	2
Total capacity .....	H.P.	2,072	-	240	-	912
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	75,951	-	185	-	30,769

TABEAU 9 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1944

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
37,347	4,534	4,117	4,534	6,230	<u>LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX</u>
46.64	5.66	5.14	5.36	7.78	Pourcentage du total pour tout le Canada
2,848	743	-	31	40	Milles de pylones d'acier
62	-	-	-	-	Milles de poteaux d'acier
32,865	3,755	4,092	4,298	6,084	Milles de poteaux de bois
536	1	-	-	1	Milles de poteaux de ciment
1,036	35	25	205	105	Milles de câbles souterrains et sous-marins
2,742	1,429	1,799	3,640	5,742	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
333	215	656	52	2,972	Non-génératrices
2,409	1,214	1,143	3,588	2,770	Génératrices
2,404	1,141	-	2,657	2,666	Hydrauliques
5	73	1,143	931	104	A combustible
34,605	3,105	2,318	894	488	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
7,157	2,204	208	421	306	Non-génératrices
27,448	901	2,110	473	182	Génératrices
27,413	867	-	-	138	Hydrauliques
35	34	2,110	473	14	A combustible
7,490	2,419	864	473	3,278	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
29,857	2,115	3,253	4,061	2,952	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GENERATRICES</u>
29,817	2,008	-	2,657	2,804	Hydrauliques
40	107	3,253	1,404	148	A combustible

TABEAU 10 - OUTILLAGE AUXILIAIRE, 1944

41,260	30,240	-	18,963	51,929	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
22.29	16.34	-	10.24	28.05	Pourcentage du total pour tout le Canada
4	1	-	7	3	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,600	1,750	-	2,753	975	Capacité totale ..... H.P.
4	7	-	4	15	Turbines à vapeur ..... Nomb.
38,000	28,490	-	15,000	46,600	Capacité totale ..... H.P.
5	-	-	7	21	Moteurs à gaz et à pétrole ..... Nomb.
1,660	-	-	1,210	4,354	Capacité totale ..... H.P.
33,497	28,120	-	16,662	41,662	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
10,160	12,000	-	18,963	50,684	<u>USINES COMMERCIALES</u>
-	-	-	7	2	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
-	-	-	2,753	650	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	3	-	4	15	Capacité totale ..... H.P.
8,500	12,000	-	15,000	46,600	Turbines à vapeur ..... Nomb.
5	-	-	7	18	Capacité totale ..... H.P.
1,660	-	-	1,210	3,434	Moteurs à gaz et à pétrole ..... Nomb.
7,282	11,250	-	16,662	40,650	Capacité totale ..... H.P.
31,100	18,240	-	-	1,245	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
4	1	-	-	1	<u>USINES MUNICIPALES</u>
1,600	1,750	-	-	325	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
2	4	-	-	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
29,500	16,490	-	-	-	Capacité totale ..... H.P.
-	-	-	-	3	Turbines à vapeur ..... Nomb.
-	-	-	-	920	Capacité totale ..... H.P.
26,215	16,870	-	-	1,012	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
					<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.



TABLE 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1944

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> .....					
..... H.P.	9,898,908	9,550	207,284	158,975	5,438,238
Per cent of total for Canada .....	100.00	0.09	2.09	1.56	54.94
Water wheels and turbines .....	863	6	58	17	294
..... No.					
Total capacity .....	9,267,969	363	108,215	107,010	5,397,912
..... H.P.					
Steam reciprocating engines .....	54	1	6	7	3
..... No.					
Total capacity .....	19,235	75	3,540	3,980	165
..... H.P.					
Steam turbines .....	120	4	18	10	9
..... No.					
Total capacity .....	556,040	6,680	92,426	42,005	36,374
..... H.P.					
Gas and oil engines .....	556	13	22	6	13
..... No.					
Total capacity .....	55,664	2,232	3,103	980	3,787
..... H.P.					
<b>TOTAL DYNAMO CAPACITY</b> .....					
..... Kv.A.	8,231,730	6,993	171,583	131,297	4,607,115
Per cent of total for Canada .....	100.00	0.08	2.08	1.60	55.97
Dynamos, A.C. ....	1,332	21	102	37	312
..... No.					
Total capacity .....	8,225,524	6,993	171,283	130,447	4,607,093
..... Kv.A.					
Dynamos, D.C. ....	237	-	1	2	1
..... No.					
Total capacity .....	6,206	-	300	850	20
..... Kw.					
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> .....					
..... H.P.	6,474,179	7,395	118,689	114,355	4,369,857
Water wheels and turbines .....	529	6	19	11	219
..... No.					
Total capacity .....	6,175,674	363	26,170	94,150	4,365,852
..... H.P.					
Steam reciprocating engines .....	35	1	6	7	1
..... No.					
Total capacity .....	12,505	75	3,540	3,980	60
..... H.P.					
Steam turbines .....	72	4	15	6	4
..... No.					
Total capacity .....	254,305	6,680	86,845	15,625	3,650
..... H.P.					
Gas and oil engines .....	402	6	7	2	5
..... No.					
Total capacity .....	31,695	277	2,134	600	295
..... H.P.					
<b>TOTAL DYNAMO CAPACITY</b> .....					
..... Kv.A.	5,373,689	5,377	98,629	97,216	3,648,090
Dynamos, A.C. ....	821	14	45	23	223
..... No.					
Total capacity .....	5,369,371	5,377	98,529	96,566	3,648,070
..... Kv.A.					
Dynamos, D.C. ....	195	-	1	2	1
..... No.					
Total capacity .....	4,318	-	300	850	20
..... Kw.					
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> .....					
..... H.P.	3,424,729	1,955	88,595	39,620	1,068,381
Water Wheels and turbines .....	354	-	39	6	75
..... No.					
Total capacity .....	3,092,295	-	82,045	12,860	1,032,060
..... H.P.					
Steam reciprocating engines .....	19	-	-	-	2
..... No.					
Total capacity .....	6,730	-	-	-	105
..... H.P.					
Steam turbines .....	48	-	3	4	5
..... No.					
Total capacity .....	301,735	-	5,581	26,360	32,724
..... H.P.					
Gas and oil engines .....	154	7	15	4	1
..... No.					
Total capacity .....	23,969	1,955	969	380	3,481
..... H.P.					
<b>TOTAL DYNAMO CAPACITY</b> .....					
..... Kv.A.	2,858,041	1,616	72,954	34,081	959,021
Dynamos, A.C. ....	511	7	57	14	8
..... No.					
Total capacity .....	2,856,153	1,616	72,954	34,081	959,021
..... Kv.A.					
Dynamos, D.C. ....	42	-	-	-	-
..... No.					
Total capacity .....	1,888	-	-	-	-
..... Kw.					



TABLEAU 11 - OUTILLAGE GLOBAL, Y COMPREIS OUTILLAGE AUXILIAIRE, 1944

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia & Yukon	
2,382,953	542,054	168,966	216,958	779,130	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H.P.
24.07	5.48	1.71	2.19	7.87	Pourcentage du total pour le Canada
351	43	-	9	85	Turbines et roues hydrauliques ..... Nomb.
2,340,252	508,300	-	91,000	714,937	Capacité totale ..... H.P.
9	2	1	17	8	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,800	1,770	330	5,711	1,444	Capacité totale ..... H.P.
4	9	26	20	20	Turbines à vapeur ..... Nomb.
38,000	29,740	144,310	112,565	53,940	Capacité totale ..... H.P.
17	28	257	184	66	Moteurs à gaz et à pétrole ..... Nomb.
2,921	2,244	23,906	7,682	8,809	Capacité totale ..... H.P.
1,916,400	438,741	142,846	181,912	634,845	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
23.28	5.33	1.74	2.21	7.71	Pourcentage du total pour le Canada
375	77	137	102	169	Dynamos, C.A. .... Nomb.
1,916,355	438,709	140,985	179,006	634,653	Capacité totale ..... Kv.A.
2	4	148	70	9	Dynamos, C.D. .... Nomb.
45	32	1,861	2,906	192	Capacité totale ..... Kw.
549,013	366,524	59,070	121,785	767,491	<u>USINES COMMERCIALES</u>
165	23	-	9	77	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
538,572	353,300	-	91,000	706,267	Turbines et roues hydrauliques ..... Nomb.
1	1	-	13	5	Capacité totale ..... H.P.
15	20	-	3,751	1,064	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	3	12	6	20	Capacité totale ..... H.P.
8,500	12,000	46,765	20,300	53,940	Turbines à vapeur ..... Nomb.
9	18	181	119	55	Capacité totale ..... H.P.
1,926	1,204	12,305	6,734	6,220	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
461,361	290,320	48,617	98,056	626,023	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
174	43	72	78	149	Dynamos, C.A. .... Nomb.
461,351	290,314	47,363	96,350	625,851	Capacité totale ..... Kv.A.
1	1	117	64	8	Dynamos, C.D. .... Nomb.
10	6	1,254	1,706	172	Capacité totale ..... Kw.
1,833,940	175,530	109,896	95,173	11,639	<u>USINES MUNICIPALES</u>
186	20	-	-	8	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
1,801,660	155,000	-	-	8,670	Turbines et roues hydrauliques ..... Nomb.
8	1	1	4	3	Capacité totale ..... H.P.
1,785	1,750	750	1,960	380	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	6	14	14	-	Capacité totale ..... H.P.
29,500	17,740	97,344	92,265	-	Turbines à vapeur ..... Nomb.
8	10	76	15	11	Capacité totale ..... H.P.
995	1,040	11,601	948	2,589	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
1,455,039	148,421	94,279	83,856	8,822	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
201	34	65	24	20	Dynamos, C.A. .... Nomb.
1,455,004	148,395	93,622	82,856	8,802	Capacité totale ..... Kv.A.
1	3	31	6	1	Dynamos, C.D. .... Nomb.
35	26	607	1,200	20	Capacité totale ..... Kw.

TABLE 12 - MAIN PLANT EQUIPMENT, 1944

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada	9,713,791	9,215	234,730	151,250	5,400,927
Water wheels and turbines	100.00	0.09	2.11	1.56	55.60
Total capacity	865	6	58	17	294
Steam reciprocating engines	9,267,969	363	108,215	107,010	5,397,912
Total capacity	31	-	2	5	2
Steam turbines	9,982	-	2,500	3,180	105
Total capacity	78	4	17	7	1
Gas and oil engines	389,131	6,680	91,756	40,080	150
Total capacity	510	12	15	6	8
Total capacity	46,709	2,172	2,459	980	2,760
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	8,073,864	6,945	169,635	129,262	4,573,219
Dynamos, A.C.	100.00	0.09	2.10	1.60	56.64
Total capacity	1,235	20	93	32	302
Dynamos, D.C.	8,069,058	6,945	169,635	128,412	4,573,199
Total capacity	234	-	-	2	1
Total capacity	4,806	-	-	850	20
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada	6,373,523	7,260	116,375	111,630	4,366,182
Water wheels and turbines	100.00	0.11	1.85	1.75	68.50
Total capacity	529	6	19	11	219
Steam reciprocating engines	6,175,674	363	26,170	94,150	4,365,852
Total capacity	18	-	2	5	-
Steam turbines	6,927	-	2,300	3,180	-
Total capacity	41	4	14	3	1
Gas and oil engines	166,110	6,680	86,175	15,700	150
Total capacity	364	5	3	2	2
Total capacity	24,812	217	1,730	600	180
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	5,290,874	5,329	96,866	95,181	3,644,965
Dynamos, A.C.	100.00	0.10	1.83	1.80	68.89
Total capacity	748	13	39	18	220
Dynamos, D.C.	5,287,956	5,329	96,866	94,331	3,644,945
Total capacity	192	-	-	2	1
Total capacity	2,918	-	-	850	20
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada	3,340,268	1,955	88,355	39,620	1,034,745
Water wheels and turbines	100.00	0.06	2.65	1.19	31.02
Total capacity	334	-	39	6	75
Steam reciprocating engines	3,092,295	-	82,045	12,860	1,032,060
Total capacity	13	-	-	-	2
Steam turbines	3,055	-	-	-	105
Total capacity	37	-	3	4	-
Gas and oil engines	225,061	-	5,561	26,580	-
Total capacity	146	7	12	4	6
Total capacity	21,827	1,955	729	380	2,580
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	2,782,390	1,616	72,769	34,081	928,254
Dynamos, A.C.	100.00	0.06	2.62	1.22	33.35
Total capacity	487	7	54	14	82
Dynamos, D.C.	2,781,102	1,616	72,769	34,081	928,254
Total capacity	42	-	-	-	-
Total capacity	1,888	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	7,695,157	338	87,184	92,838	4,570,700
Dynamos, A.C.	100.00	0.04	1.13	1.20	59.40
Total capacity	856	5	58	16	292
Dynamos, D.C.	7,692,867	338	87,184	92,838	4,570,680
Total capacity	4	-	-	1	1
Total capacity	290	-	-	200	20
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	380,707	6,607	82,451	37,024	2,519
Dynamos, A.C.	100.00	1.73	21.00	9.73	0.66
Total capacity	379	15	38	16	10
Dynamos, D.C.	377,191	6,607	82,451	36,374	2,519
Total capacity	250	-	-	1	-
Total capacity	4,516	-	-	600	-



TABLEAU 12 - OUTILLAGE DES USINES PRINCIPALES, 1944

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,341,693	x 511,814	x 168,966	197,995	727,201	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
24.10	5.27	1.74	2.04	7.49	Pourcentage du total pour le Canada .....
351	43	-	9	85	Roues hydrauliques et turbines ..... Nomb.
2,335,232	508,300	-	91,000	714,937	Capacité totale ..... H.P.
5	1	1	10	5	Machines à vapeur, à mouvement alternatif ..... Nomb.
200	20	750	2,958	469	Capacité totale ..... H.P.
-	2	26	16	5	Turbines à vapeur ..... Nomb.
-	1,250	144,310	97,565	7,340	Capacité totale ..... H.P.
12	28	257	127	45	Moteurs à gaz et à pétrole ..... Nomb.
1,261	2,244	23,906	6,472	4,455	Capacité totale ..... H.P.
1,882,903	410,621	142,846	165,250	593,183	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
23.32	5.08	1.77	2.05	7.35	Pourcentage du total pour le Canada .....
364	69	137	86	132	Dynamos, C.A. .... Nomb.
1,882,858	410,589	140,985	163,444	592,991	Capacité totale ..... Kv.A.
2	4	148	68	9	Dynamos, C.D. .... Nomb.
45	32	1,861	1,806	192	Capacité totale ..... Kw.
538,853	354,524	59,070	102,822	716,807	<u>USINES COMMERCIALES</u>
8.46	5.56	0.33	1.61	11.25	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
165	23	-	9	77	Pourcentage du total pour le Canada .....
538,572	353,300	-	91,000	706,267	Turbines et roues hydrauliques ..... Nomb.
1	1	-	6	3	Capacité totale ..... H.P.
15	20	-	998	414	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	12	2	5	Capacité totale ..... H.P.
-	-	46,765	5,300	7,340	Turbines à vapeur ..... Nomb.
4	18	181	112	37	Capacité totale ..... H.P.
266	1,204	12,305	5,524	2,786	Moteurs à gaz et à pétrole ..... Nomb.
454,079	279,070	48,617	81,394	585,573	Capacité totale ..... H.P.
8.58	5.28	0.92	1.54	11.06	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
169	40	72	62	115	Pourcentage du total pour le Canada .....
454,069	279,064	47,363	80,788	585,201	Dynamos, C.A. .... Nomb.
1	1	117	62	8	Capacité totale ..... Kv.A.
10	6	1,254	606	172	Dynamos, C.D. .... Nomb.
1,802,840	157,290	109,896	95,175	10,394	Capacité totale ..... Kw.
53.90	4.72	3.30	2.85	0.31	<u>USINES MUNICIPALES</u>
186	20	-	-	8	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
1,801,660	155,000	-	-	8,670	Pourcentage du total pour le Canada .....
4	-	1	4	2	Turbines et roues hydrauliques ..... Nomb.
185	-	750	1,960	55	Capacité totale ..... H.P.
-	2	14	14	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	1,250	97,545	92,265	-	Capacité totale ..... H.P.
8	10	76	15	8	Turbines à vapeur ..... Nomb.
995	1,040	11,601	948	1,669	Capacité totale ..... H.P.
1,428,824	131,551	94,229	83,856	7,810	Moteurs à gaz et à pétrole ..... Nomb.
51.34	4.73	3.39	3.01	0.28	Capacité totale ..... H.P.
195	29	65	24	17	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
1,428,789	131,525	93,322	82,656	7,790	Pourcentage du total pour le Canada .....
1	3	51	6	1	Dynamos, C.A. .... Nomb.
35	26	607	1,200	20	Capacité totale ..... Kv.A.
1,881,761	407,600	-	71,500	581,836	Dynamos, C.D. .... Nomb.
24.46	5.29	-	0.92	7.50	Capacité totale ..... Kw.
349	43	-	9	84	<u>USINES HYDRAULIQUES</u>
1,681,761	407,600	-	71,500	581,766	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
-	-	-	-	2	Pourcentage du total pour le Canada .....
-	-	-	-	70	Dynamos, C.A. .... Nomb.
1,142	3,021	142,846	95,750	11,847	Capacité totale ..... Kv.A.
0.30	0.79	37.52	24.63	2.38	Pourcentage du total pour le Canada .....
15	26	137	77	48	Dynamos, C.A. .... Nomb.
1,097	2,989	140,985	91,944	11,825	Capacité totale ..... Kv.A.
2	4	148	68	7	Dynamos, C.D. .... Nomb.
45	32	1,861	1,806	122	Capacité totale ..... Kw.

x - Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.



TABLE 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1944

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>PRIMARY POWER</b> .....						
Water wheels and turbines ..... No.	863	6	58	17	294	351
Total H.P.	9,267,969	363	108,215	107,010	5,397,912	2,335,232
Under 500 H.P. .... No.	131	6	19	2	31	51
Total H.P.	28,354	363	4,725	710	6,368	12,242
500 - 2,000 H.P. .... No.	220	-	20	4	51	124
Total H.P.	256,819	-	21,100	3,800	65,844	135,055
2,000 - 5,000 H.P. .... No.	138	-	12	6	35	65
Total H.P.	408,971	-	41,390	17,500	99,000	186,935
5,000 - 10,000 H.P. .... No.	111	-	7	1	33	33
Total H.P.	731,525	-	41,000	5,000	253,400	211,300
10,000 - 15,000 H.P. .... No.	83	-	-	-	28	46
Total H.P.	960,900	-	-	-	301,900	550,200
15,000 - 25,000 H.P. .... No.	58	-	-	4	20	11
Total H.P.	1,091,500	-	-	80,000	408,500	182,500
25,000 - 50,000 H.P. .... No.	78	-	-	-	57	6
Total H.P.	2,746,900	-	-	-	2,115,900	168,000
50,000 H.P. and up ..... No.	44	-	-	-	29	15
Total H.P.	3,065,000	-	-	-	2,169,000	894,000
Steam reciprocating engines ..... No.	31	-	2	5	2	5
Total H.P.	9,982	-	2,300	3,180	105	200
Under 500 H.P. .... No.	23	-	-	2	2	5
Total H.P.	2,472	-	-	280	105	200
500 H.P. and up ..... No.	8	-	2	3	-	-
Total H.P.	7,510	-	2,300	2,900	-	-
Steam turbines ..... No.	78	4	17	7	1	-
Total H.P.	389,131	6,680	91,756	40,080	150	-
Under 500 H.P. .... No.	4	-	-	-	1	-
Total H.P.	992	-	-	-	150	-
500 - 2,000 H.P. .... No.	20	3	2	1	-	-
Total H.P.	22,699	4,180	2,256	700	-	-
2,000 - 5,000 H.P. .... No.	28	1	8	3	-	-
Total H.P.	84,221	2,500	24,125	11,000	-	-
5,000 - 10,000 H.P. and up ..... No.	26	-	7	3	-	-
Total H.P.	261,219	-	65,375	28,360	-	-
Gas and oil engines ..... No.	510	12	15	6	8	12
Total H.P.	46,709	2,172	2,459	980	2,760	1,261
<b>SECONDARY POWER</b> .....						
Dynamos, A.C. and D.C. .... No.	1,469	20	93	34	305	366
Total Kv.A.	8,075,864	6,945	169,635	129,262	4,573,219	1,882,903
Dynamos, A.C. .... No.	1,235	20	93	32	302	364
Total Kv.A.	8,069,058	6,945	169,635	128,412	4,573,199	1,882,858
Under 50 Kv.A. .... No.	118	5	9	-	4	8
Total Kv.A.	3,344	136	256	-	159	243
50 - 200 Kv.A. .... No.	187	6	11	7	18	31
Total Kv.A.	20,165	493	1,211	802	1,752	3,820
200 - 500 Kv.A. .... No.	147	5	17	2	26	43
Total Kv.A.	45,971	1,486	5,363	675	9,206	13,483
500 - 1,000 Kv.A. .... No.	143	1	14	4	38	68
Total Kv.A.	101,619	625	9,395	2,750	27,600	48,820
1,000 - 5,000 Kv.A. .... No.	282	3	33	12	53	117
Total Kv.A.	662,375	4,205	88,755	29,475	114,295	251,360
5,000 - 10,000 Kv.A. .... No.	115	-	8	3	25	47
Total Kv.A.	809,752	-	52,175	24,710	166,020	356,592
10,000 - 15,000 Kv.A. .... No.	74	-	1	-	32	25
Total Kv.A.	802,325	-	12,500	-	333,660	267,040
15,000 - 25,000 Kv.A. .... No.	65	-	-	4	23	8
Total Kv.A.	1,217,750	-	-	70,000	454,250	154,000
25,000 - 50,000 Kv.A. .... No.	83	-	-	-	67	12
Total Kv.A.	3,033,757	-	-	-	2,366,257	515,500
50,000 Kv.A. and up ..... No.	21	-	-	-	16	5
Total Kv.A.	1,372,000	-	-	-	1,100,000	272,000
Dynamos, D.C. .... No.	254	-	-	2	1	2
Total Kw.	4,806	-	-	850	20	45
Under 50 Kw. .... No.	228	-	-	-	1	2
Total Kw.	2,636	-	-	-	20	45
50 - 200 Kw. .... No.	2	-	-	-	-	-
Total Kw.	170	-	-	-	-	-
200 - 500 Kw. .... No.	2	-	-	1	-	-
Total Kw.	600	-	-	200	-	-
500 Kw. and up ..... No.	2	-	-	1	-	-
Total Kw.	1,400	-	-	650	-	-

TABLEAU 13 - OUTILLAGE CLASSIFIÉ DES USINES PRINCIPALES, 1944

Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal	
511,814	168,966	197,995	727,201	6,373,523	3,240,268	<u>FORCE MOTRICE PRIMAIRE</u> ..... H.P.
43	-	9	85	529	334	<u>Turbines et roues hydrauliques</u> ..... Nomb.
508,300	-	91,000	714,937	6,175,674	3,092,295	Total H.P. ....
-	-	-	22	88	43	Moins de 500 H.P. .... Nomb.
-	-	-	3,946	16,954	11,400	Total H.P. ....
-	-	-	11	121	99	500 - 2,000 H.P. .... Nomb.
-	-	-	13,020	124,674	111,945	Total H.P. ....
4	-	2	14	86	52	2,000 - 5,000 H.P. .... Nomb.
12,800	-	8,000	43,346	261,821	147,150	Total H.P. ....
21	-	4	12	65	46	5,000 - 10,000 H.P. .... Nomb.
130,000	-	24,000	86,825	441,825	290,200	Total H.P. ....
4	-	-	5	37	46	10,000 - 15,000 H.P. .... Nomb.
50,000	-	-	58,800	410,800	550,100	Total H.P. ....
8	-	3	12	44	14	15,000 - 25,000 H.P. .... Nomb.
147,500	-	59,000	214,000	861,000	250,500	Total H.P. ....
6	-	-	9	72	6	25,000 - 50,000 H.P. .... Nomb.
168,000	-	-	295,000	2,578,900	168,000	Total H.P. ....
-	-	-	-	16	28	50,000 et plus H.P. .... Nomb.
-	-	-	-	1,480,000	1,583,000	Total H.P. ....
1	1	10	5	18	13	<u>Machines à vapeur, à mouvement alternatif</u> ..... Nomb.
20	750	2,958	469	6,927	3,055	Moins de 500 H.P. .... Total H.P. ....
1	-	8	5	13	10	Total H.P. ....
20	-	1,398	469	1,727	745	500 H.P. et plus .... Nomb.
-	1	2	-	5	3	Total H.P. ....
-	750	1,560	-	5,200	2,310	Total H.P. ....
2	28	16	5	41	37	<u>Turbines à vapeur</u> ..... Nomb.
1,250	144,310	97,565	7,340	166,110	223,021	Total H.P. ....
1	1	1	-	1	3	Moins de 500 H.P. .... Nomb.
400	267	175	-	150	842	Total H.P. ....
1	7	2	4	12	6	500 - 2,000 H.P. .... Nomb.
850	8,375	2,000	4,340	14,423	8,276	Total H.P. ....
-	9	6	1	17	11	2,000 - 5,000 H.P. .... Nomb.
-	26,296	17,300	3,000	47,896	36,325	Total H.P. ....
-	9	7	-	11	15	5,000 - 10,000 H.P. .... Nomb.
-	109,374	78,090	-	103,641	177,578	Total H.P. ....
28	257	127	45	364	146	<u>Moteurs à gaz et à pétrole</u> ..... Nomb.
2,244	23,906	6,472	4,455	24,812	21,897	Total H.P. ....
73	285	154	141	940	529	<u>FORCE MOTRICE SECONDAIRE</u>
410,621	142,846	165,250	593,183	5,290,874	2,782,990	<u>Dynamos, C.A. et C.L.</u> ..... Nomb.
69	137	86	152	748	487	Total Kv.A. ....
410,589	140,985	163,444	592,991	5,287,956	2,781,102	<u>Dynamos, C.L.</u> ..... Nomb.
14	33	27	18	82	36	Total Kv.A. ....
566	1,016	689	479	2,337	1,007	Moins de 50 Kv.A. .... Nomb.
7	43	29	35	125	62	Total Kv.A. ....
622	4,664	3,125	3,676	13,058	7,127	50 - 200 Kv.A. .... Nomb.
4	32	6	12	70	77	Total Kv.A. ....
1,220	9,739	1,450	3,349	21,441	24,530	200 - 500 Kv.A. .... Nomb.
1	6	2	9	83	60	Total Kv.A. ....
781	3,886	1,500	6,262	57,670	43,949	500 - 1,000 Kv.A. .... Nomb.
14	15	13	22	165	117	Total Kv.A. ....
46,350	34,180	39,875	53,900	391,995	270,380	1,000 - 5,000 Kv.A. .... Nomb.
11	4	3	14	68	47	Total Kv.A. ....
70,750	25,000	16,805	97,700	478,625	531,127	5,000 - 10,000 Kv.A. .... Nomb.
7	2	1	6	31	45	Total Kv.A. ....
76,000	25,000	12,500	75,625	363,725	468,600	10,000 - 15,000 Kv.A. .... Nomb.
11	2	5	12	50	15	Total Kv.A. ....
214,500	37,500	87,500	200,000	945,750	274,000	15,000 - 25,000 Kv.A. .... Nomb.
-	-	-	4	58	25	Total Kv.A. ....
-	-	-	152,000	1,915,375	1,118,582	25,000 - 50,000 Kv.A. .... Nomb.
-	-	-	-	16	5	Total Kv.A. ....
-	-	-	-	1,100,000	272,000	50,000 Kv.A. et plus .... Nomb.
4	148	68	9	192	42	Total Kv.A. ....
32	1,861	1,806	192	2,918	1,888	<u>Dynamos, C.D.</u> ..... Nomb.
4	146	66	9	190	58	Total Kw. ....
32	1,691	656	192	2,068	568	Moins de 50 Kw. .... Nomb.
-	2	-	-	-	2	Total Kw. ....
-	170	-	-	-	170	50 - 200 Kw. .... Nomb.
-	-	1	-	1	1	Total Kw. ....
-	-	400	-	400	400	200 - 500 Kw. .... Nomb.
-	-	1	-	1	1	Total Kw. ....
-	-	750	-	680	750	500 Kw. et plus .... Nomb.
						Total Kw. ....



TABLE 14 - ELECTRIC ENERGY GENERATED, 1944

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>ALL STATIONS</u>					
Total kilowatt hours generated ..... (thousands)	40,598,779	15,968	582,589	521,951	23,277,511
Per cent of total for Canada .....	100.00	.04	1.43	1.29	57.33
Kilowatt hours generated by non-generating stations ... (thousands)	1,119	-	50	-	-
Kilowatt hours generated by generating stations ..... (thousands)	40,597,660	15,968	582,539	521,951	23,277,511
Kv.A. capacity of generating stations .....	8,211,073	6,993	169,785	129,262	4,597,111
Ratio of output to maximum capacity ..... p.c.	56.78	26.06	39.17	46.10	57.81
Average kilowatt hours per Kv.A. ....	4,944	2,283	3,431	4,038	5,084
<u>GENERATING STATIONS</u>					
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	25,687,464	11,648	335,021	408,394	17,860,851
Kv.A. capacity .....	5,367,802	5,377	97,016	95,181	3,648,090
Ratio of output to maximum capacity ..... p.c.	55.13	24.73	39.42	48.98	55.88
Average kilowatt hours per Kv.A. ....	4,785	2,166	3,453	4,291	4,899
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	25,267,243	385	95,222	373,776	17,860,281
Kv.A. capacity .....	5,202,590	386	19,926	81,975	3,647,811
Ratio of output to maximum capacity ..... p.c.	55.96	11.38	54.55	52.05	55.88
Average kilowatt hours per Kv.A. ....	4,657	997	4,779	4,560	4,899
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	420,221	11,263	239,799	34,618	568,111
Kv.A. capacity .....	165,212	4,991	77,090	13,206	278,111
Ratio of output to maximum capacity ..... p.c.	29.04	25.76	35.51	29.92	23.71
Average kilowatt hours per Kv.A. ....	2,544	2,257	3,111	2,621	2,071
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	14,910,196	4,320	247,518	113,557	5,416,661
Kv.A. capacity .....	2,843,271	1,616	72,769	34,081	949,021
Ratio of output to maximum capacity ..... p.c.	59.86	30.51	38.82	38.04	65.11
Average kilowatt hours per Kv.A. ....	5,244	2,673	3,401	3,332	5,701
<u>Hydraulic stations</u>					
Kilowatt hours generated ..... (thousands)	14,432,888	-	233,325	20,539	5,410,721
Kv.A. capacity .....	2,627,776	-	67,408	10,263	946,771
Ratio of output to maximum capacity ..... p.c.	62.69	-	39.51	22.84	65.21
Average kilowatt hours per Kv.A. ....	5,492	-	3,461	2,001	5,711
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	477,308	4,320	14,193	93,018	5,941
Kv.A. capacity .....	215,495	1,616	5,361	23,818	2,241
Ratio of output to maximum capacity ..... p.c.	25.29	30.51	30.22	44.58	30.11
Average kilowatt hours per Kv.A. ....	2,215	2,673	2,647	3,905	2,641
<u>TOTAL HYDRAULIC STATIONS</u>					
Kilowatt hours generated ..... (thousands)	39,700,131	385	328,547	394,315	23,271,001
Kv.A. capacity .....	7,830,366	386	87,334	92,238	4,594,591
Ratio of output to maximum capacity ..... p.c.	58.24	11.38	42.95	48.80	57.81
Average kilowatt hours per Kv.A. ....	5,070	997	3,762	4,275	5,061
Kilowatt hours generated by water power ..... (thousands)	39,553,352	385	328,535	394,315	23,270,731
Kilowatt hours generated by auxiliary plants ..... (thousands)	146,779	-	12	-	271
<u>TOTAL FUEL STATIONS</u>					
Kilowatt hours generated ..... (thousands)	897,529	15,583	253,992	127,636	6,501
Kv.A. capacity .....	380,707	6,607	82,451	37,024	2,511
Ratio of output to maximum capacity ..... p.c.	26.92	26.93	35.17	39.35	29.41
Average kilowatt hours per Kv.A. ....	2,358	2,359	3,081	3,447	2,581
<u>CONSUMPTION OF ELECTRIC ENERGY (Thousands of Kilowatt Hours)</u>					
Total kilowatt hours generated .....	40,598,779	15,968	582,589	521,951	23,277,511
Kilowatt hours imported from the United States .....	14,097	-	-	8	25
Kilowatt hours imported from other provinces .....	-	-	-	7,903	37,221
Kilowatt hours exported to the United States .....	2,585,311	-	-	35,653	2,261
Kilowatt hours exported to other provinces .....	-	-	-	-	5,130,401
<u>KILOWATT HOURS FOR CONSUMPTION IN CANADA</u> ..... (thousands)					
Domestic service .....	38,027,565	15,968	582,589	494,109	18,182,331
Commercial light .....	3,046,980	4,579	63,516	39,441	446,141
Small power .....	1,417,599	3,197	44,098	27,896	350,451
Large power .....	670,458	1,304	44,116	16,866	143,251
Street lighting .....	29,112,909	4,656	352,720	378,588	15,982,511
Free service (other than street lighting) .....	198,367	383	5,703	7,133	40,011
Losses .....	103,337	85	1,143	431	85,941
	3,477,915	1,764	71,293	23,754	1,136,011

/ Excludes exports to other provinces and/or to the United States.



TABLEAU 14 - ENERGIE ELECTRIQUE GENEREE, 1944

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia & Yukon	
<u>TOUTES USINES</u>					
10,538,574	2,232,855	243,884	555,034	2,630,409	Total kw. heure générés ..... (milliers)
25.96	5.50	0.60	1.37	6.48	Pourcentage du total pour le Canada .....
814	1	-	-	254	Kilowatt-heure générés par les usines non-génératrices .. (milliers)
10,537,760	2,232,854	243,884	555,034	2,630,155	Kilowatt-heure générés par les usines génératrices ..... (milliers)
1,914,091	435,621	142,846	181,912	635,450	Capacité des usines génératrices en Kv.A. ....
62.84	58.52	19.49	34.83	51.32	Proportion de la production à la capacité maximum ..... p.c.
5,505	5,126	1,707	3,051	4,152	Moyenne de kilowatt-heure par Kv.A. ....
<u>USINES GENERATRICES</u>					
<u>USINES COMMERCIALES</u>					
<u>TOTAL</u>					
2,450,274	1,564,251	84,143	361,096	2,611,784	Kilowatt-heure générés ..... (milliers)
460,267	290,320	48,617	98,056	624,878	Capacité en Kv.A. ....
60.78	61.51	19.76	42.04	51.72	Proportion de la production à la capacité maximum ..... p.c.
5,324	5,388	1,731	3,683	4,180	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines Hydrauliques</u>					
2,450,188	1,563,081	-	341,650	2,582,653	Kilowatt-heure générés ..... (milliers)
460,032	289,350	-	88,162	614,941	Capacité en Kv.A. ....
60.76	61.67	-	44.24	52.04	Proportion de production à la capacité maximum ..... p.c.
5,323	5,402	-	3,875	4,200	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines à combustible</u>					
86	1,170	84,143	19,446	29,131	Kilowatt-heure générés ..... (milliers)
235	970	48,617	9,894	9,937	Capacité en Kv.A. ....
41.78	13.77	19.76	22.43	33.47	Proportion de production à la capacité maximum ..... p.c.
3,660	1,206	1,731	1,965	2,932	Moyenne de kilowatt-heure par Kv.A. ....
<u>USINES MUNICIPALES</u>					
<u>TOTAL</u>					
8,087,486	668,603	159,741	193,958	18,371	Kilowatt-heure générés ..... (milliers)
1,453,824	145,301	94,229	83,856	8,572	Capacité en Kv.A. ....
63.50	52.53	19.35	26.40	24.46	Proportion de la production à la capacité maximum ..... p.c.
5,563	4,602	1,695	2,313	2,143	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines Hydrauliques</u>					
8,086,584	665,748	-	-	16,171	Kilowatt-heure générés ..... (milliers)
1,452,917	143,250	-	-	7,162	Capacité en Kv.A. ....
63.54	53.05	-	-	25.78	Proportion de production à la capacité maximum ..... p.c.
5,566	4,647	-	-	2,258	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines à combustible</u>					
1,102	2,855	159,741	193,958	2,200	Kilowatt-heure générés ..... (milliers)
907	2,051	94,229	83,856	1,410	Capacité en Kv.A. ....
13.87	15.69	19.35	26.40	17.81	Proportion de la production à la capacité maximum ..... p.c.
1,215	1,392	1,695	2,313	1,560	Moyenne de kilowatt-heure par Kv.A. ....
<u>TOUTES USINES HYDRAULIQUES</u>					
10,556,572	2,228,829	-	341,650	2,598,824	Kilowatt-heure générés ..... (milliers)
1,912,949	432,600	-	88,162	622,103	Capacité en Kv.A. ....
62.88	58.81	-	44.24	51.71	Proportion de la production à la capacité maximum ..... p.c.
5,508	5,152	-	3,875	4,177	Moyenne de kilowatt-heure par Kv.A. ....
10,556,054	2,228,799	-	322,015	2,472,510	Kilowatt-heure générés par force motrice hydraulique ..... (milliers)
518	50	-	19,635	126,314	Kilowatt-heure générés par les usines auxiliaires ..... (milliers)
<u>TOUTES USINES A COMBUSTIBLE</u>					
1,188	4,025	243,884	213,384	31,331	Kilowatt-heure générés ..... (milliers)
1,142	3,021	142,846	93,750	11,347	Capacité en Kv.A. ....
11.87	15.21	19.49	25.98	51.52	Proportion de la production à la capacité maximum ..... p.c.
1,040	1,332	1,707	2,276	2,761	Moyenne de kilowatt-heure par Kv.A. ....
<u>CONSUMMATION D'ENERGIE ELECTRIQUE (En milliers de Kw.H.)</u>					
10,558,574	2,232,855	243,884	555,034	2,650,409	Total de kilowatt-heure générés .....
-	236	41	115	13,439	Kilowatt-heure importés des Etats-Unis .....
5,122,597	-	-	4,976	-	Kilowatt-heure importés d'autres provinces .....
2,545,895	1,220	-	-	282	Kilowatt-heure exportés aux Etats-Unis .....
37,224	-	-	-	4,976	Kilowatt-heure exportés à d'autres provinces .....
<u>KILOWATT-HEURE CONSOMMEES AU CANADA</u>					
13,078,052	2,231,871	243,925	560,125	2,638,590	..... (milliers)
1,787,359	389,865	52,724	56,977	206,377	Service domestique .....
651,868	106,346	45,870	58,185	129,689	Eclairage commercial .....
505,388	60,908	32,135	30,991	55,491	Petite force motrice .....
8,665,639	1,394,655	82,728	354,458	1,916,954	Grosse force motrice .....
87,029	20,799	7,239	10,221	19,842	Eclairage des rues .....
1,232	54	108	2,588	13,755	Service gratuit (autre que l'éclairage des rues) .....
1,579,537	259,244	23,121	66,705	316,482	Pertes .....

/ Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.

TABLE 15 - FUEL, 1944

	<u>Bituminous Coal</u> Charbon Bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA .....	527,770	2,612,780	690	4,122
Prince Edward Island .....	12,231	107,145	-	-
Nova Scotia .....	211,044	1,115,619	-	-
New Brunswick .....	110,888	652,297	-	-
Quebec .....	283	2,531	340	2,200
Ontario .....	230	1,132	350	1,922
Manitoba .....	3,184	31,826	-	-
Saskatchewan .....	111,209	448,309	-	-
Alberta .....	38,446	50,749	-	-
British Columbia and Yukon ..	40,255	203,172	-	-
	<u>Fuel Oil and Diesel Oil</u> Mazout et huile diesel		<u>Wood</u> Bois	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Gal. Gal.	\$	Cords Cordes	\$
CANADA .....	29,418,899	1,907,366	1,211	7,599
Prince Edward Island .....	371,038	38,500	-	-
Nova Scotia .....	349,338	34,399	100	250
New Brunswick .....	114,498	12,501	-	-
Quebec .....	454,628	45,759	-	-
Ontario .....	291,731	33,130	-	-
Manitoba .....	247,936	30,944	995	5,609
Saskatchewan .....	10,481,927	610,546	-	-
Alberta .....	624,252	88,222	-	-
British Columbia and Yukon ...	16,483,551	1,013,365	116	1,740

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu. feet.

TABLEAU 15 - COMBUSTIBLE, 1944

Lignite Coal Charbon Lignite		Gasolene Gasoline		Kerosene Kérosène	
Canadian - Canadien					
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
257,549	660,707	42,512	10,017	4,625	829
-	-	750	190	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	235	66	-	-
1,650	8,303	470	127	-	-
75,385	139,984	18,555	4,157	50	15
180,514	512,420	13,789	2,908	4,575	814
-	-	8,713	2,569	-	-
Manufactured Gas Gaz fabriqué		Natural Gas Gaz naturel		Other Fuel Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu.ft. 1,000 pds.cu.	\$	1,000 cu.ft. 1,000 pds.cu.	\$	\$	\$
9,634,116	139,678	1,120,260	109,200	36,185	5,488,483
-	-	-	-	-	145,835
9,634,116	139,678	-	-	-	1,289,946
-	-	-	-	-	664,798
-	-	-	-	-	50,490
-	-	-	-	-	36,250
-	-	-	-	4,685	81,494
-	-	-	-	-	1,203,011
-	-	1,120,260	109,200	-	764,313
-	-	-	-	31,500	1,252,346

Note: Tonne = 2,000 livres.  
Gallon = Impérial.  
Corde = 128 pds. cu.





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Minister of Trade and Commerce

**CANADA**  
**DEPARTMENT OF TRADE AND COMMERCE**  
**DOMINION BUREAU OF STATISTICS**  
**TRANSPORTATION & PUBLIC UTILITIES BRANCH**

*Electric power*

**CENSUS OF INDUSTRY**  
**1945**  
**CENTRAL ELECTRIC STATIONS**  
**IN CANADA**



OTTAWA  
1947

Price 25 cents



THE  
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**TRANSPORTATION AND PUBLIC UTILITIES BRANCH**  
**OTTAWA**

Dominion Statistician, HERBERT MARSHALL

Chief, Transportation and Public Utilities Branch, G.S. Wrong

CENTRAL ELECTRIC STATION INDUSTRY, 1945

20-1900

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 19 stations which were holding generating equipment classed as auxiliary plant equipment. Fifteen of them purchased all their electric energy and the remaining four generated only 532,000 kilowatt hours. This explains the rather anomalous item in table 14 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

Primary power produced for use in Canada (including all line losses) decreased from 35,284,444,000 kilowatt hours in 1944 to 30,853,713,000 kilowatt hours, or by 12.2 per cent, but the consumption of secondary power increased from 2,113,848,000 to 3,645,324,000 kilowatt hours.

Secondary power is off peak and surplus power delivered as it is available. It is subject to interruption or variation daily and seasonally, and consequently, is sold at relatively low rates. The stations endeavour to keep their customers advised as such in advance as possible of interruptions or reductions, which are due to variations in water supply and in the demands of customers for primary power.

Primary power, also known in the industry as firm power, is power delivered as and when demanded or required by the customer. Stations must be ready to deliver power to primary power customers, up to the rate contracted for, whenever the customer requires it, and consequently must have sufficient capacity to take care of all such demands. In practice all customers on a system do not require their maximum deliveries at the same time and generally there is a considerable difference hourly and daily in the rate at which the power plant must operate to produce the power as required. Most of the secondary power is sold to pulp and paper plants for the production of low pressure steam where short interruptions of the electric energy for the boilers can be tolerated without much inconvenience.

According to monthly reports the consumption of primary power continued to decline throughout 1945 and up to and including August 1946, but from then on increases were recorded. Deliveries of secondary power were much heavier in 1945 than in 1944 and still heavier in 1946, but they began to decline in 1947 and at the end of June were 18 per cent less than in 1946 and only slightly below the 1945 deliveries. The pulp and paper industry again became the largest user of electric energy, accounting for 22.6 per cent of the total production. The aluminium industry, which is included in the metal, melting and refining class, was also a large consumer; it takes approximately ten kilowatt hours of energy to produce one pound of aluminium.

The production of electric energy for secondary use each month is shown below.

SECONDARY POWER FOR USE IN CANADA

(Thousands of Kilowatt Hours)

Month	1 9 4 2	1 9 4 3	1 9 4 4	1 9 4 5
January	263,203	129,985	132,138	545,019
February	208,221	126,124	146,975	506,380
March	264,013	148,811	167,028	618,420
April	238,672	189,265	162,288	674,236
May	291,739	263,430	319,574	623,467
June	249,143	239,342	263,938	560,819
July	141,722	199,275	126,336	491,774
August	102,224	184,787	209,721	481,841
September	94,586	181,952	201,485	450,404
October	130,769	136,424	267,605	545,700
November	147,441	158,724	347,940	574,349
December	107,380	155,729	398,093	573,415
TOTAL	2,239,113	2,113,848	2,743,121	6,645,824

For the following table data for the six groups were taken from the industrial census reports of the industries and consumption for other industries was computed by deduction, and consequently is only approximately correct.

CONSUMPTION OF ELECTRIC ENERGY, 1945  
(Thousands of Kilowatt Hours)

Industries	Central Electric Station Power Purchased				Power Generated by the Industries for own use
	Power and Light	Other Purposes	Total Central Electric Stn. Power	P.C. of Total Production	
Pulp and Paper .....	5,225,343	3,862,446	9,087,789	22.6	1,766,582
Ferro-Alloys .....	22,487	859,784	882,271	2.2	-
Abrasives .....	21,023	690,904	711,927	1.8	-
Electro-Chemicals .....	526,015	784,687	1,310,702	3.3	46,085
Metal, Smelting & Refining	931,945	5,756,410	6,788,355	16.9	68,177
Steel Furnaces .....	84,659	249,242	333,901	.8	55,829
<b>TOTAL .....</b>	<b>6,811,472</b>	<b>12,203,473</b>	<b>19,114,945</b>	<b>47.6</b>	<b>1,936,673</b>
Other Industries .....			9,608,977	23.9	
Domestic Service (Residential) .....			3,365,498	8.4	
Commercial Lighting .....			1,613,733	4.0	
Street Lighting .....			226,218	.6	
Free Service .....			64,327	.2	
Exports to U.S.A. (Net) .....			2,646,435	6.6	
Losses .....			3,505,837	8.7	
<b>TOTAL OUTPUT OF CENTRAL ELECTRIC STATIONS ) Plus Imports (15,916 kw.hrs.) )</b>			<b>40,145,970</b>	<b>100.0</b>	

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the calendar year ended December 31, 1945, the export duty amounted to \$674,457.24. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported.



Below is a table showing the quantities of power exported for the calendar year 1945. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS EXPORTED TO THE UNITED STATES

(Calendar Years 1944 and 1945)

Company	Exported	Exported
	1 9 4 4	1 9 4 5
	Kw. Hrs.	Kw. Hrs.
Hydro-Electric Power Commission of Ontario .....	395,280,000	394,245,000
" " " " " " (surplus)- Niagara	834,114,105	954,911,061
" " " " " " " - Cornwall	274,102,880	165,819,000
Cedar Rapids Manufacturing and Power Co., Ltd. ....	627,047,466	618,842,478
Canadian Niagara Power Company, Ltd. ....	312,033,481	322,722,441
" " " " " (surplus) .....	64,931,100	99,409,843
Ontario and Minnesota Power Company .....	38,094,000	38,365,000
Maine and New Brunswick Electric Power Company .....	29,195,321	40,384,249
British Columbia Electric Railway Company, Ltd. ....	248,040	273,050
Northport Power and Light Company .....	16,444	15,206
Southern Canada Power Company .....	2,261,256	2,462,695
Canadian Cottons, Ltd. ....	1,164,000	2,708,400
Northern British Columbia Power Company .....	17,290	12,170
Fraser Companies, Ltd. ....	5,293,000	4,574,000
Detroit and Windsor Subway Company .....	292,200	291,800
Manitoba Power Commission .....	1,220,133	1,398,840
<b>TOTAL .....</b>	<b>2,585,310,716</b>	<b>2,646,435,233</b>

Of the total output of 40,130,054,000 kilowatt hours, 39,131,020,000 kilowatt hours, or over 97 per cent, was produced by water power, whereas only 909,387,000 kilowatt hours were produced by plants using only thermal engines and 89,649,000 kilowatt hours were produced by thermal auxiliary equipment in hydraulic plants and in non-generating plants.

Total hydraulic installations in all industries in Canada at the close of 1945, including active and inactive plants, as compiled by the Dominion Water and Power Bureau was 10,283,610 horse power. The available and developed water power in each province is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 4 5	1 9 4 6
	H. P.	H. P.	H. P.	H. P.
Prince Edward Island	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	133,384	133,384
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	5,848,572	5,848,572
Ontario .....	5,407,200	7,261,400	2,673,290	2,679,740
Manitoba .....	3,309,000	5,344,500	422,825	446,825
Saskatchewan .....	542,000	1,082,000	90,835	90,835
Alberta .....	507,800	1,258,000	94,997	93,060
British Columbia ...	7,023,000	10,998,000	864,024	864,024
Yukon and Northwest Territories	382,500	813,500	19,719	19,719
CANADA .....	25,722,900	40,124,300	10,283,610	10,312,123

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than and theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 52,000,000 horse power.



TABLE 1 - COMPARATIVE SUMMARY, 1936 - 1945

For the first time since 1933 the revenues of the industry showed a decline from those of the previous year. The reduction was all from power sales, revenues from domestic or residential uses increasing from \$53,311,353 in 1944 to \$55,735,696, from commercial lighting from \$30,805,456 to \$32,911,620 and from street lighting from \$4,573,704 to \$5,029,181. Revenue from small power declined from \$11,546,203 to \$10,947,854 and from large power customers from \$115,309,675 to \$110,481,122.

Expenses, which include only four items: wages, power purchased, fuel and taxes, increased from \$131,289,947 to \$135,104,091. Wages increased from \$36,945,296 to \$39,521,365, taxes from \$17,861,743 to \$19,125,746 and cost of power (payments for power interchanged between stations) from \$70,994,425 to \$71,358,219, but fuel costs declined from \$5,488,483 to \$5,098,761.

Pole line mileage continued to increase to 83,178 miles, the increase from 71,575 to 74,477 miles of wooden poles accounting for most of the total increase. The number of customers continued to grow, reaching 2,333,230 in 1945 which was almost double the number in 1925. Domestic or residential service customers accounted for 1,987,360 of the total. These include 130,078 farm service customers, which increased 11.7 per cent or from 116,609 during the year as compared with an increase in other domestic service customers of 3.8 per cent.

Total production of the stations amounted to 40,130,054,000 kilowatt hours, of which 2,646,466,000 kilowatt hours was exported to the United States. Through an exchange arrangement with the United States Boulder Dam plant British Columbia stations imported 15,190,000 kilowatt hours during the year. Consumption for domestic service, commercial light and street lighting all showed increases. Losses also showed an increase. These are computed by deducting the sales from the output of the power plants, and consequently absorb any errors in understating sales or overstating production. The total capacity of primary equipment showed a slight decline from 8,713,791 to 8,666,947 horse power. Primary here means water wheels and turbines and steam and internal combustion engines used to operate generators which are classed as secondary power equipment.

TABLE 2-DOMESTIC SERVICE, 1936 - 1945

This table shows the number of customers, the consumption, revenue and averages computed from these for domestic service including farm service for 1945 back to 1936. In all provinces the number of customers increased during this period, the percentages ranging from 25 per cent in Manitoba to 61 per cent in New Brunswick. The rate of consumption also increased in all provinces, Prince Edward Island leading here with an increase of 156 per cent. All of the provinces showed increased revenues from domestic service. The average annual consumption per customer varied widely, Manitoba leading with an average in 1945 of 4,399 kw. hrs. per customer and New Brunswick showing the smallest consumption at 739 kw. hrs. There have been relatively small changes in the average annual bills in each province even where the consumptions have shown fairly large increases and the bills for Nova Scotia, New Brunswick, Ontario and British Columbia have been remarkably close together throughout these ten years despite the wide variations in unit costs. The bills do not include federal provincial or municipal taxes on electricity purchased. Domestic services are further discussed under Table 5 and at the end of this report.

TABLE 3 - POWER PLANTS

The generating stations are the individual power plants of the central electric stations. Each building housing power machinery is counted as a generating station. The commercial organizations are companies and individuals selling electric energy and the municipalities include urban and rural municipalities, provincial commissions, etc., selling electric energy. Those generating power operate from one to several power plants each, the largest system being the Ontario Hydro-Electric Power Commission which operates 51 hydraulic plants and owns one steam auxiliary plant. The auxiliary plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are included above as generating stations.



TABLE 4 - CAPITAL - Not collected for 1944 and 1945

TABLE 5 - REVENUES

Central electric stations are required to make a division of customers, consumption and revenue under the following headings: (1) farm service, (2) domestic service, which includes lighting and all other uses in residences, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge to public buildings, etc. The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province, the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick and Alberta, which purchased power from other provinces, were lower than they should have been.

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services for each station, but even here the use of electric stoves, flat rate water heaters, the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills, aluminium plants, wholesale to Ontario, etc., showed a smaller proportion of revenue from domestic service than any other stations, although greater in dollars than those in other provinces except Ontario. In computing the average total revenue per kilowatt hour all line losses were included, but for domestic service and farm services, for commercial light, etc., line losses were not included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also, where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The average revenue of 1.66 cents per kilowatt hour for all domestic service, 1.61 cents with farm services excluded, compares with an average of 3.41 cents in the United States. The average revenues per horse power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in tables 12 and 13 were increased one horse power for each 576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro-electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per ampere for each horse power purchased. It is quite probable this output is a little too high for all power imported from Quebec, and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

The Federal sales tax on domestic service bills has been treated by practically all central electric stations as a tax on the consumer and was not included in either revenues or expenses. The Act placed the tax on the producer or importer, but a subsequent Order in Council

allowed the producer or importer to increase the charge to the consumer by the amount of the tax irrespective of any agreements, charters, etc. Only a few stations absorbed this tax, most of them passed it on to the consumer. Also provincial and municipal taxes on domestic bills, where imposed, have not been included as either revenue or expenses.

TABLE 6 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Cost of power includes the cost to municipalities receiving their supply from provincial commissions as well as interchange of power between generating stations and between generating and other non-generating stations. As explained above, the sales taxes on domestic bills have not been included in the taxes shown in this table.

Following is a table detailing the taxes reported by commercial and municipal stations. As stated in the foregoing, under "Revenues" these taxes do not include the federal, provincial and municipal taxes on sales of electricity for domestic use except in the few cases where the station absorbed the tax. They also do not include water rentals. The federal unemployment tax did not apply to all utility employees until September 1, 1943, but all stations apparently did not include the employer payments as a Dominion tax. Also all stations did not include the tax on gasoline used as a tax. It is common practice to treat sales taxes as part of the cost of the commodity. Some stations, however, did include gasoline taxes with their taxes. The Dominion tax included income and excess profits tax, tax on exports of electricity, and the two mentioned above. The greater part of the municipal tax paid by municipal stations was tax payments continued by the Ontario Hydro-Electric Power Commission on plant acquired by the Commission from commercial stations, and in Quebec export taxes and other taxes paid by the newly created Quebec Hydro-Electric Commission.

T A X E S

Province	Commercial Stations				Municipal Stations			
	Municipal	Provincial	Dominion	Total	Municipal	Provincial	Dominion	Total
	\$	\$	\$	\$	\$	\$	\$	\$
P. E. Island	19,829	1,358	1,080	22,267	-	-	-	-
Nova Scotia	267,129	9,233	765,388	1,041,750	49,895	1,667	1,234	52,796
New Brunswick	64,807	14,442	134,991	214,240	119	119	25	263
Quebec .....	2,020,390	165,421	7,293,463	9,479,274	613,224	3,101	105,573	721,898
Ontario .....	381,862	3,577	1,506,636	1,892,075	431,564	25,937	411,911	869,412
Manitoba .....	137,319	2,693	1,569	141,581	102,964	-	26	102,990
Saskatchewan..	110,326	70	250,405	360,801	62,709	-	22	62,731
Alberta .....	45,425	1,764	446,949	494,138	132,979	-	679	133,658
British Columbia, Yukon & N.W.T.	356,944	205,946	2,857,076	3,419,966	3,083	5,531	107,292	115,906
TOTAL	3,404,031	404,504	13,257,557	17,066,092	1,396,537	36,355	626,762	2,059,654
Total- Commercial Stns	3,404,031	404,504	13,257,557	17,066,092				
Municipal "	1,396,537	36,355	626,762	2,059,654				
TOTAL	4,800,568	440,859	13,884,319	19,125,746				



TABLE 7 - EMPLOYEES

There was a net increase of 1,513 employees during the year, New Brunswick and Alberta stations showing the only decreases. The following table analyses the hours of work of wage earners in the industry. The majority, 43 per cent, worked a 48 hour week and 30 per cent worked 44 hours or less per week. All stations did not report these data but the table gives a fair representation of the industry.

NUMBER OF WAGE EARNERS IN MONTH OF HIGHEST EMPLOYMENT  
WHOSE REGULAR HOURS PER WEEK WERE:

Hours per week	30 or less	31-43	44	45-47	48	49-50	51-54	55	56-64	65 & over	Total
P. E. I.	-	-	1	-	63	-	1	-	7	3	75
N. S.	127	117	57	39	185	34	91	9	196	44	899
N. B.	105	70	43	9	199	9	19	-	48	14	516
Quebec	164	407	363	101	2,401	463	224	58	526	136	4,843
Ontario	268	566	641	595	2,590	535	312	47	213	34	5,801
Manitoba	186	291	393	16	359	25	28	13	113	96	1,520
Saskatchewan	40	10	54	17	344	10	24	1	4	6	510
Alberta	18	65	46	8	343	4	4	2	8	-	498
B.C. & Yukon	26	196	485	11	338	8	-	-	60	6	1,130
CANADA	934	1,722	2,083	796	6,822	1,088	703	130	1,175	339	15,792
P.C. of Total	5.92	10.90	13.19	5.04	43.20	6.89	4.45	0.82	7.44	2.15	100.00

TABLE 8 - CUSTOMERS

As explained under table 5, stations are required to segregate customers into seven classes but in the past many stations included farm customers with domestic customers, and in the Bureau's reports all customers in these two classes were combined and shown as "Domestic Customers". Below is a table showing the farm customers as reported, together with the respective consumptions and revenues received from them. These revenues do not include taxes as explained under "Revenues" on page 8. Because of the increasing attention to rural electrification, it is probable that these data are more comprehensive than previously reported. These data, however, are included under "Domestic" in tables 2, 5, 8 and 14 as in previous reports. The relatively large number of farm customers and low average revenue per kilowatt hour in Ontario are undoubtedly due to the assistance given by the Ontario Government to this class of service. The farm customers in Ontario include only farms, whereas in former years rural customers in hamlets were also included.

FARM SERVICE, 1945

Province	Number of Customers	Kilowatt Hours	Revenue	Kw. Hrs. per Customer	Average Annual Bill <sup>(1)</sup>	Revenue per Kw.Hr. <sup>(1)</sup>	P.C. of Dominion Farm Service Consumption
			\$		\$	\$	%
P. E. Island	1,393	768,542	55,729	552	40.01	7.3	0.44
Nova Scotia	8,989	4,630,706	201,086	515	22.99	4.5	2.62
New Brunswick	7,517	2,343,568	181,824	312	24.19	7.8	1.33
Quebec	38,314	20,428,566	875,329	535	22.84	4.3	11.55
Ontario	67,526	140,626,396	2,672,196	2,085	39.57	1.9	79.53
Manitoba	1,236	1,382,340	62,576	1,119	50.63	4.5	0.78
Saskatchewan	417	303,949	29,236	729	70.11	9.6	0.17
Alberta	1,620	1,909,054	115,189	1,178	71.10	6.0	1.08
British Columbia	3,066	4,419,418	143,705	1,441	46.87	3.3	2.50
Canada	130,078	176,813,139	4,542,370	1,359	33.38	2.5	100.00

(1) Federal, Provincial and Municipal taxes on the electricity purchased are not included.



TABLE 9 - POLE LINE MILEAGE

Transmission and distribution lines are combined in this table and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileage.

TABLES 10-11-12-13 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 89,115,000 kilowatt hours being generated during the year by this auxiliary equipment.

TABLE 14 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations. The ratios indicate the relative position of the supply to the demand on a kilo

hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. This changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly, especially up to 1937. Since the outbreak of the war the supply of surplus power has been greatly reduced and with war industries working twenty four hours per day the supply of off-peak power has also been reduced so that sales of secondary power have shown a steady decrease up to the middle of 1943 when they began to increase again and continued to increase throughout 1944, 1945 and 1946.

#### TABLE 15 - FUEL

Fuel used was almost exclusively local coal, oil and gas, and stations in Nova Scotia and Saskatchewan were the largest users. The value of Canadian bituminous coal was 54 per cent of the total, lignite coal accounted for 13 per cent, fuel oil and diesel oil for 26 per cent and gasoline, gas, wood, etc., accounted for the remainder.

#### DOMESTIC SERVICE

In the following table data on domestics are brought together and analysed. It might be expected the provinces with relatively high percentages of rural populations, Prince Edward Island, Saskatchewan and Alberta, show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of the use. Manitoba's low unit cost and high average consumption are influenced by flat rate water heaters and extensive use for cooking in Winnipeg; these induce high consumption per customer. There was also a large number of flat rate water heaters in Ontario. Also, where hydro-electric power is plentiful the rates are generally low and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and large consumption by pulp and paper, aluminium and other electric metallurgical plants.

Domestic customers in Ontario used 58 per cent of the total power used by all domestic customers in Canada but the population of this province was almost a third of the total for the Dominion.

These bills do not include federal, provincial and municipal sales taxes paid by the consumers.

(1) DOMESTIC SERVICE

1 9 4 5

Province	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	P.C. of total Provincial Consumption	P.C. of Dominion Dom. Service Consumption
			\$	¢	Kw.hrs.	Kw.hrs.		
P. E. Island	6,387	6.94	37.35	4.57	817	57	31.1	0.1
Nova Scotia	84,011	13.53	27.21	3.26	834	113	11.7	2.1
New Brunswick	62,175	13.29	30.29	4.10	739	98	7.7	1.4
Quebec	558,865	15.69	21.34	2.35	908	142	2.3	15.1
Ontario	839,968	20.98	28.21	1.21	2,337	490	18.3	58.3
Manitoba	94,673	12.86	44.76	1.02	4,399	566	18.2	12.4
Saskatchewan	61,285	7.25	41.87	4.39	953	69	23.4	1.7
Alberta	87,005	10.53	33.70	4.59	735	77	11.3	1.9
B.C. & Yukon	192,991	19.98	30.92	2.54	1,218	243	8.2	7.0
CANADA	1,987,360	16.40	28.05	1.66	1,693	278	8.4	100.0

(1) Includes Farm Customers.



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TABLE 1 - COMPARATIVE SUMMARY, 1936-1945

PRINCIPAL DATA BY CLASS OF STATION	1945	1944	1943	1942	1941
<b>ELECTRIC POWER PLANTS</b>					
Total .....	600	626	622	616	607
Hydraulic .....	302	320	322	320	313
Fuel .....	298	306	300	296	294
Commercial .....	392	424	425	428	424
Municipal .....	208	202	197	188	185
<b>CAPITAL</b>					
Total .....	Data not collected in 1944 & 1945		1,778,224,640	1,747,891,798	1,641,460,451
Commercial .....			1,149,225,710	1,127,978,332	1,054,714,025
Municipal .....			628,998,930	619,913,466	586,746,426
Generating .....			1,584,624,501	1,559,495,388	1,459,900,540
Non-generating .....			195,600,139	188,396,410	181,559,911
<b>REVENUE (1)</b>					
Total .....	215,105,473	215,246,391	204,801,508	203,835,565	186,018,040
Commercial .....	101,672,511	104,986,232	124,730,993	124,611,713	111,851,778
Municipal .....	113,432,962	110,260,159	80,070,515	79,223,652	74,166,262
Generating .....	185,227,685	185,574,224	175,217,757	175,916,640	157,283,409
Non-generating .....	31,877,788	29,672,167	29,583,751	29,918,725	28,734,651
<b>EXPENSES (2)</b>					
Total .....	135,104,091	131,289,947	135,555,469	132,581,418	117,758,977
Commercial .....	60,893,580	60,470,374	72,579,621	71,133,582	60,561,821
Municipal .....	74,210,511	70,819,573	62,975,848	61,448,036	57,197,356
Generating .....	83,336,610	79,913,496	81,500,674	80,171,586	69,148,513
Non-generating .....	51,767,481	51,376,451	54,054,795	52,409,832	48,610,464
<b>POLE LINE MILEAGE</b>					
Total .....	83,178	80,073	78,063	77,909	77,253
Commercial .....	31,117	30,877	32,085	31,847	31,442
Municipal .....	52,061	49,196	45,978	46,062	45,811
Generating .....	66,694	63,665	61,710	61,927	61,495
Non-generating .....	16,484	16,408	16,353	15,982	15,758
<b>CUSTOMERS</b>					
Total .....	2,333,230	2,238,023	(4) 2,164,861	2,125,304	2,081,270
Domestic service (3) .....	1,987,360	1,906,452	(4) 1,848,080	1,803,708	1,755,917
Commercial light .....	285,402	273,451	259,640	264,706	268,977
Power (small) .....	46,955	45,284	44,948	44,813	44,071
Power (large) .....	10,955	10,376	9,772	9,673	9,934
Street lighting .....	2,558	2,460	2,421	2,404	2,371
Commercial stations .....	766,554	753,239	(4) 1,005,316	985,059	954,966
Municipal stations .....	1,566,676	1,484,784	1,158,545	1,140,245	1,126,564
Generating stations .....	1,256,095	1,195,778	1,129,272	1,103,539	1,079,233
Non-generating stations .....	1,077,135	1,042,245	(4) 1,035,589	1,021,765	1,002,037
<b>ELECTRIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	40,130,054	40,598,779	40,479,593	37,355,179	33,317,663
Commercial .....	25,530,857	25,688,580	31,082,239	28,177,387	24,793,715
Municipal .....	14,599,197	14,910,199	9,397,354	9,177,792	8,523,948
Exports to the United States .... (thousands) Kw.h.	2,646,435	2,585,311	2,545,038	2,453,739	2,354,229
Imports from the United States .. (thousands) Kw.h.	15,916	14,097	599	594	670
<b>EQUIPMENT IN GENERATING STATIONS (Main Plant Only)</b>					
Total Primary Power .....	9,666,947	9,713,791	9,602,794	8,613,696	8,157,585
Total in commercial stations .....	6,294,121	6,373,523	7,239,936	6,269,386	5,917,160
Total in municipal stations .....	3,372,826	3,340,268	2,362,858	2,344,310	2,240,425
Total Secondary Power .....	8,035,767	8,073,864	7,982,027	7,256,927	6,851,785
Total in commercial stations .....	5,227,037	5,290,874	6,074,895	5,366,769	5,054,727
Total in municipal stations .....	2,808,730	2,782,990	1,907,132	1,890,158	1,797,058
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	173,312	185,117	194,822	194,966	194,651
Secondary power .....	146,556	157,866	166,010	166,236	166,021

- (1) Cost of power interchanged between stations excluded from revenue of purchasing stations (see page 7).
- (2) Includes wages, cost of power, fuel and taxes, but not other expenses.
- (3) Farm service is included with domestic service.
- (4) Revised in 1944 report.



TABLEAU 1 - SOMMAIRE COMPARATIF, 1936-1945

1940	1939	1938	1937	1936	DONNEES PRINCIPALES PAR CLASSES D'USINES
602 313 289 421 181	611 513 298 427 184	589 513 276 406 183	568 514 254 389 179	561 512 249 390 171	<u>USINES ELECTRIQUES</u> Total Hydrauliques A combustible Commerciales Municipales
1,615,438,140 1,049,506,904 565,931,236 1,440,026,870 175,411,270	1,564,603,211 1,014,704,665 549,898,546 1,396,838,921 167,764,290	1,545,416,592 1,002,891,485 542,525,107 1,377,120,289 168,296,303	1,497,330,251 979,950,159 517,380,072 1,337,399,695 159,930,536	1,483,116,649 957,466,865 525,649,784 1,326,820,103 156,296,546	<u>CAPITAL</u> Total Commerciales Municipales Génératrices Non-génératrices
166,228,773 99,887,052 66,341,721 139,673,392 26,555,381	151,880,969 92,535,049 59,345,920 127,483,222 24,397,747	144,331,627 87,697,078 56,634,549 120,784,939 23,546,688	143,546,643 85,283,008 58,263,635 120,465,135 23,081,508	135,865,173 78,882,504 56,982,669 112,776,015 23,089,158	<u>RECETTES (1)</u> Total Commerciales Municipales Génératrices Non-génératrices
105,044,158 51,990,160 53,053,998 60,752,761 44,291,397	91,982,372 42,471,534 49,510,838 51,570,137 40,412,235	87,364,340 41,067,998 46,296,342 48,946,422 38,417,918	84,185,082 41,132,931 43,052,151 46,114,640 38,070,442	77,939,050 36,530,527 41,408,523 41,890,019 36,549,031	<u>DEPENSES (2)</u> Total Commerciales Municipales Génératrices Non-génératrices
75,050 30,935 44,117 59,676 15,374	72,132 30,288 41,844 57,084 15,048	66,977 29,355 37,622 52,373 14,604	63,035 28,332 34,703 48,866 14,169	59,456 27,271 32,165 45,099 14,337	<u>LIGNES SUR POTEAUX</u> Total Commerciales Municipales Génératrices Non-génératrices
2,006,508 1,686,388 265,175 43,138 9,490 2,317 926,093 1,088,415 1,032,433 982,075	1,941,663 1,623,672 262,590 43,896 9,267 2,258 889,418 1,052,245 998,067 943,596	1,873,621 1,559,894 259,893 41,999 10,152 2,183 859,506 1,014,115 954,797 918,824	1,805,995 1,500,128 252,305 41,415 10,066 2,081 833,711 972,284 916,648 889,347	1,740,793 1,443,059 245,144 40,742 9,840 2,008 802,676 938,117 866,407 874,386	<u>ABONNES</u> Total Service domestique (3) Eclairage commercial Force motrice (petite) Force motrice (grosse) Eclairage des rues Usines commerciales Usines municipales Usines génératrices Usines non-génératrices
30,109,283 22,287,270 7,822,013	28,338,030 21,290,930 7,047,100	26,154,160 19,488,323 6,665,837	27,687,645 20,515,627 7,572,018	25,402,282 18,515,225 6,887,057	<u>ENERGIE ELECTRIQUE GENEREE</u> Total Kw. heures générés (milliers) Commerciale Municipale
2,132,129 655	1,908,756 666	1,822,103 624	1,843,227 1,317	1,573,980 765	Exportations d'électricité aux Etats-Unis ..... (milliers) Kw.h. Importations d'électricité des Etats-Unis ..... (milliers) Kw.h.
7,935,867 5,708,664 2,227,203 6,691,211 4,906,268 1,784,943	7,607,122 5,385,632 2,221,490 6,435,416 4,654,745 1,780,671	7,476,976 5,300,183 2,176,793 6,327,868 4,586,273 1,741,595	7,342,085 5,205,529 2,138,556 6,206,465 4,496,443 1,710,022	7,119,272 5,012,968 2,106,304 6,025,999 4,340,869 1,685,130	<u>MACHINERIE DANS LES USINES GENERATRICES</u> (Usines principales seulement) Total force motrice primaire ..... H.P. Total dans les usines commerciales .. H.P. Total dans les usines municipales ... H.P. Total force motrice secondaire ..... Kv.A. Total dans les usines commerciales .. Kv.A. Total dans les usines municipales ... Kv.A.
194,914 166,367	194,139 165,785	195,628 166,660	197,350 167,839	200,621 172,327	<u>OUTILLAGE D'USINES AUXILIAIRES</u> Force motrice primaire ..... H.P. Force motrice secondaire ..... Kv.A.

- (1) Le coût de l'énergie échangée entre stations est exclu du revenu des stations en faisant l'achat (Voir p. 7).  
 (2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.  
 (3) L'éclairage des fermes est inclus dans l'éclairage domestique.  
 (4) Révisé en 1944.



TABLE 2 - DOMESTIC SERVICE, 1936 - 1945

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
		(000)	\$	kw.hrs.	\$	\$
<b>CANADA</b> .....						
1936	1,445,059	1,887,116	58,399,102	1,508	26.61	2.03
1937	1,500,128	2,007,433	39,253,133	1,338	26.17	1.96
1938	1,559,594	2,172,500	41,502,107	1,393	26.49	1.90
1939	1,623,672	2,310,891	43,793,482	1,423	26.97	1.90
1940	1,686,398	2,436,572	46,444,557	1,445	27.54	1.91
1941	1,755,917	2,582,405	48,683,162	1,471	27.73	1.89
1942	1,803,708	2,716,895	50,706,757	1,506	28.11	1.87
1943	1,852,367	2,843,612	51,307,781	1,535	27.70	1.80
1944	1,906,452	3,046,980	53,311,353	1,598	27.96	1.75
1945	1,987,560	3,365,497	55,735,696	1,693	28.05	1.66
Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 544,301 37.72	1,478,381 78.34	17,336,594 45.15	385 29.43	1.44 5.41	- 0.37 -18.23
<b>PRINCE EDWARD ISLAND</b> .....						
1936	4,379	2,035	145,442	465	33.21	7.15
1937	4,545	2,232	152,660	491	33.59	6.84
1938	4,799	2,579	150,994	537	31.46	5.85
1939	5,067	2,908	163,226	574	32.21	5.61
1940	5,227	3,076	172,643	588	33.03	5.61
1941	5,531	3,483	183,090	630	33.10	5.26
1942	5,606	3,580	196,446	639	35.04	5.49
1943	5,715	3,895	217,914	682	38.13	5.59
1944	6,103	4,579	230,596	750	37.78	5.04
1945	6,387	5,217	238,538	817	37.35	4.57
Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 2,008 45.86	3,182 156.36	93,096 64.01	352 75.70	4.14 12.47	- 2.58 -36.08
<b>NOVA SCOTIA</b> .....						
1936	54,763	29,212	1,457,054	533	26.61	4.99
1937	58,165	31,692	1,535,298	545	26.40	4.84
1938	58,556	35,307	1,595,086	603	27.24	4.52
1939	62,034	39,084	1,709,507	630	27.56	4.37
1940	65,790	43,277	1,877,812	658	28.54	4.34
1941	69,997	48,357	2,065,057	691	29.50	4.27
1942	72,592	50,877	2,166,648	715	29.85	4.18
1943	75,957	57,324	2,156,852	755	28.40	3.76
1944	79,904	63,516	2,439,703	795	30.55	3.84
1945	84,011	70,099	2,286,358	834	27.21	3.26
Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 29,248 53.41	40,887 139.97	829,304 56.92	301 56.47	.60 2.25	- 1.73 -34.67
<b>NEW BRUNSWICK</b> .....						
1936	38,660	22,049	1,068,038	570	27.63	4.84
1937	41,604	23,488	1,117,953	565	26.87	4.76
1938	43,556	25,367	1,232,937	582	28.31	4.86
1939	46,485	26,989	1,307,772	581	28.13	4.85
1940	50,661	29,388	1,413,237	580	27.88	4.81
1941	52,831	31,234	1,435,015	591	27.16	4.59
1942	54,529	34,696	1,563,334	636	28.67	4.51
1943	56,239	35,294	1,661,550	628	29.54	4.71
1944	58,860	39,441	1,767,380	670	30.03	4.48
1945	62,175	45,958	1,883,374	739	30.29	4.10
Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 23,515 60.83	23,909 108.44	815,335 76.34	169 29.65	2.66 9.63	- 0.74 -15.29
<b>QUEBEC</b> .....						
1936	390,711	241,799	7,723,973	619	19.77	3.19
1937	407,155	265,405	8,108,946	632	19.92	3.06
1938	421,178	287,107	8,669,034	682	20.58	3.02
1939	434,825	311,420	9,167,384	716	21.08	2.94
1940	451,791	324,032	9,634,398	717	21.32	2.97
1941	473,547	342,627	10,100,300	724	21.33	2.95
1942	488,014	368,173	10,785,887	754	22.10	2.93
1943	507,765	398,305	10,791,660	784	21.25	2.71
1944	530,396	446,142	11,304,901	841	21.31	2.53
1945	558,865	507,274	11,925,494	908	21.34	2.35
Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 168,154 43.04	265,475 109.79	4,201,521 54.40	289 46.69	1.57 7.94	- 0.84 -26.35

TABLEAU 2 - SERVICE DOMESTIQUE, 1936 - 1945

	Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
	Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
			(000)	\$	kw. hrs.	\$	\$
<b>ONTARIO</b> .....	1936	634,052	1,098,598	17,716,656	1,733	27.94	1.61
	1937	660,262	1,174,358	17,718,464	1,779	26.84	1.51
	1938	691,498	1,285,568	18,456,575	1,859	26.69	1.44
	1939	719,871	1,374,325	19,657,658	1,909	27.51	1.43
	1940	745,596	1,459,233	20,928,097	1,958	28.08	1.45
	1941	772,153	1,546,189	21,980,031	2,002	28.47	1.42
	1942	787,721	1,623,780	22,807,897	2,061	28.95	1.40
	1943	801,430	1,682,562	23,000,644	2,099	28.70	1.37
	1944	813,356	1,787,359	23,239,991	2,198	28.57	1.30
	1945	839,968	1,963,043	23,699,446	2,337	28.21	1.21
	Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 205,916 32.48	864,445 78.69	5,982,810 33.77	604 34.85	.27 .97	- 0.40 -24.84
<b>MANITOBA</b> .....	1936	75,858	296,110	3,029,140	3,903	59.93	1.02
	1937	76,516	303,271	3,122,597	3,963	40.81	1.03
	1938	77,762	311,793	3,223,605	4,010	41.45	1.03
	1939	81,091	320,827	3,511,662	3,956	40.84	1.05
	1940	83,404	330,269	3,423,312	3,960	41.04	1.04
	1941	85,106	343,041	3,472,277	4,031	40.80	1.01
	1942	87,615	355,928	3,570,492	4,062	40.75	1.00
	1943	88,528	374,169	3,712,351	4,226	41.93	.99
	1944	92,073	389,865	3,871,419	4,234	42.05	.99
	1945	94,673	416,499	4,237,484	4,399	44.76	1.02
	Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 18,815 24.80	120,389 40.66	1,208,344 39.89	496 12.71	4.83 12.10	- -
<b>SASKATCHEWAN</b> .....	1936	46,478	36,044	1,851,794	776	59.84	5.14
	1937	46,630	37,234	1,852,503	798	59.73	4.98
	1938	48,060	39,077	1,903,751	813	59.61	4.87
	1939	49,980	41,198	2,004,435	824	40.10	4.87
	1940	51,425	43,406	2,093,205	844	40.70	4.82
	1941	52,695	45,448	2,173,255	862	41.24	4.78
	1942	54,132	46,858	2,173,896	866	40.16	4.64
	1943	55,500	48,996	2,257,885	883	40.68	4.61
	1944	58,089	52,724	2,397,702	908	41.28	4.55
	1945	61,285	58,402	2,565,796	953	41.87	4.39
	Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 14,807 31.86	22,358 62.03	714,002 38.56	177 22.81	2.03 5.10	- 0.75 -14.59
<b>ALBERTA</b> .....	1936	59,600	33,481	1,789,422	562	30.02	5.34
	1937	61,121	35,339	1,865,520	578	30.52	5.28
	1938	63,030	38,089	1,985,226	604	31.46	5.21
	1939	68,267	42,210	2,145,093	618	31.42	5.08
	1940	69,397	45,110	2,275,091	630	32.78	5.04
	1941	72,422	47,572	2,393,189	657	33.05	5.03
	1942	74,814	49,089	2,393,073	656	31.99	4.87
	1943	77,810	52,100	2,514,031	670	32.51	4.83
	1944	81,652	56,977	2,698,155	698	33.04	4.74
	1945	87,005	63,962	2,932,410	735	33.70	4.59
	Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 27,405 45.98	30,481 91.04	1,142,988 63.87	173 30.78	3.68 12.26	- 0.75 -14.04
<b>BRITISH COLUMBIA</b> .....	1936	138,558	127,768	3,617,603	922	26.11	2.83
	1937	144,130	134,414	3,779,592	933	26.22	2.81
	1938	150,955	147,613	4,086,919	978	27.07	2.77
	1939	156,052	151,930	4,326,747	974	27.73	2.85
	1940	163,277	158,781	4,626,562	972	28.54	2.91
	1941	171,635	174,454	4,880,948	1,016	28.44	2.80
	1942	178,685	182,914	5,049,084	1,024	28.26	2.76
	1943	179,136	190,967	4,994,894	1,066	27.88	2.62
	1944	186,019	206,377	5,361,506	1,109	28.82	2.60
	1945	192,991	235,043	5,966,796	1,218	30.92	2.54
	Change (Changement) Amount (Volume) Per cent (p.c.)	1936 - 1945 54,433 39.29	107,255 83.93	2,349,193 64.94	296 32.10	4.81 18.42	- 0.29 -10.25



TABLE 5 - ELECTRIC POWER PLANTS, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
Total number of generating stations .....	600	9	47	14
Per cent of total for Canada .....	100.00	1.50	7.83	2.33
<u>COMMERCIAL</u> .....	392	8	20	8
Hydraulic .....	183	4	12	5
Fuel .....	209	4	8	3
<u>MUNICIPAL</u> .....	208	1	27	6
Hydraulic .....	119	-	20	3
Fuel .....	89	1	7	3
With water wheels and turbines .....	302	4	32	8
With steam engines only .....	20	-	-	1
With steam turbines only .....	24	1	7	1
With gas or oil engines only .....	247	4	7	3
With both steam engines and turbines .....	4	-	1	1
With both steam and gas or oil engines .....	1	-	-	-
With alternating current dynamos only .....	463	9	47	12
With direct current dynamos only .....	133	-	-	1
With both alternating and direct current dynamos ...	2	-	-	1
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 372	7	17	14
Number generating power .....	269	5	11	7
Number buying power for redistribution .....	105	2	6	7
<u>MUNICIPALITIES</u> .....	X 463	1	23	10
Number generating power .....	80	1	8	2
Number buying power for redistribution .....	387	-	15	8
<u>AUXILIARY PLANTS</u> .....	57	1	5	2
To hydraulic stations .....	42	1	1	-
To non-generating stations .....	15	-	4	2

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.



TABEAU 3 - USINES GENERATRICES, 1945

Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia & Yukon	
99	120	19	141	78	73	<u>Nombre d'usines génératrices</u>
16.50	20.00	3.17	23.50	13.00	12.17	Pourcentage du total pour le Canada
75	51	12	100	67	51	<u>COMMERCIALES</u>
73	48	2	-	4	35	Hydrauliques
2	3	10	100	63	16	A combustible
24	69	7	41	11	22	<u>MUNICIPALES</u>
21	62	2	-	-	11	Hydrauliques
3	7	5	41	11	11	A combustible
94	110	4	-	4	46	Avec roues et turbines hydrauliques
1	4	1	1	7	5	Avec machines à vapeur seulement
1	-	-	7	4	3	Avec turbines à vapeur seulement
3	6	13	132	60	19	Avec moteurs à gaz ou à pétrole seulement
-	-	-	1	1	-	Avec machines et turbines à vapeur à la fois
-	-	1	-	-	-	Avec machines à vapeur à gaz et à pétrole
98	119	17	53	39	69	Avec dynamos à courant alternatif seulement
1	1	2	88	36	4	Avec dynamos à courant direct seulement
-	-	-	-	1	-	Avec dynamos à courant alternatif et direct
63	60	16	83	69	45	<u>USINES COMMERCIALES</u>
35	34	10	81	57	29	Nombre d'usines génératrices
28	26	6	2	12	16	Nombre d'usines achetant de l'électricité pour la revendre
33	328	8	30	15	19	<u>MUNICIPALITES</u>
14	11	4	22	9	9	Nombre d'usines génératrices
19	317	4	8	6	10	Nombre d'usines achetant de l'électricité pour la revendre
9	8	3	-	8	21	<u>USINES AUXILIAIRES</u>
8	5	2	-	8	17	Aux usines hydrauliques
1	3	1	-	-	4	Aux usines non-génératrices

- Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.

TABLE 5 - REVENUE, 1945 (1)

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	215,105,475	555,934	8,362,069	5,639,747	80,494,022
For domestic service .....	55,735,696	258,538	2,286,358	1,883,374	11,925,494
For commercial light .....	32,911,620	150,764	1,500,081	939,491	8,924,961
For power (small) .....	10,947,854	50,698	1,202,050	427,499	2,550,051
For power (large) .....	110,481,122	95,203	3,172,955	2,240,375	55,922,502
For street lighting .....	5,029,181	20,751	200,625	149,008	1,171,054
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	101,672,511	402,506	5,730,881	2,927,911	53,457,478
Non-generating .....	8,416,396	499	705,034	507,534	172,878
Generating .....	93,256,115	402,007	5,025,847	2,420,377	53,284,600
Hydraulic .....	84,368,768	15,716	1,210,154	1,749,567	53,242,475
Fuel .....	8,887,347	386,291	3,815,693	670,810	42,127
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	113,452,962	153,428	2,631,188	2,711,836	27,036,544
Non-generating .....	23,461,392	-	365,283	616,182	661,173
Generating .....	89,971,570	153,428	2,265,905	2,095,654	26,375,371
Hydraulic .....	80,090,602	-	1,823,500	109,369	26,258,147
Fuel .....	9,880,968	153,428	442,405	1,986,285	117,224
Revenue of non-generating stations .....	31,877,788	499	1,070,317	1,123,716	834,051
Revenue of generating stations .....	183,227,685	555,435	7,291,752	4,516,051	79,659,971
Revenue of hydraulic stations .....	164,459,370	15,716	3,053,654	1,858,936	79,500,620
Revenue of fuel stations .....	18,768,315	539,719	4,258,098	2,657,095	159,351
Average revenue per H.P. of primary power .....	22.25	60.33	40.90	37.66	14.90
Average revenue per H.P. in main and auxiliary plants .....	21.86	59.46	40.41	36.99	14.80
Average revenue per Kv.A. of dynamo capacity .....	26.77	80.05	49.41	43.94	17.60
Average revenue per Kv.A. in main and auxiliary plants .....	26.29	79.50	48.85	43.25	17.47
Average revenue per kilowatt hour consumed .....	.53	3.32	1.59	.93	.36
Average revenue per domestic service customer .....	28.05	37.35	27.21	30.29	21.34
Average revenue per commercial light customer .....	115.32	122.97	126.63	126.19	117.14
Average revenue per small power customer .....	233.16	415.56	468.63	325.84	232.03
Average revenue per large power customer .....	10,084.99	11,900.38	16,877.42	17,102.10	33,346.75
Average revenue per kilowatt hour - domestic and farm service .....	1.66	4.57	3.26	4.10	2.35
Average revenue per kilowatt hour - commercial light ...	2.04	4.53	3.18	3.03	2.28

/ Affected by power purchased from other province.

X Adjusted for power purchased from Quebec plants

(1) Gross revenue less cost of power interchanged between stations.

TABLEAU 5 - RECETTES, 1945 (1)

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
85,923,618	11,182,472	7,017,204	49,152,416	20,479,071	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
23,699,446	4,237,484	2,565,796	2,932,410	5,966,796	Pour éclairage domestique
10,325,778	2,191,213	2,074,137	2,484,413	4,320,782	Pour éclairage commercial
3,387,090	499,517	977,063	944,162	909,744	Pour force motrice (petite)
46,301,896	7,995,345	1,099,860	2,499,639	8,854,427	Pour force motrice (grosse)
2,209,408	258,913	300,348	291,792	421,522	Pour éclairage des rues
11,534,374	5,782,421	2,561,198	4,327,337	18,279,071	<u>RECETTES DES USINES COMMERCIALES</u>
2,890,473	232,157	194,422	111,114	5,733,356	Non-génératrices
8,443,901	5,550,284	2,366,776	4,216,223	12,545,719	Génératrices
8,414,420	5,448,750	-	3,098,899	12,188,388	Hydrauliques
29,481	101,514	2,366,776	1,117,324	357,331	A combustible
74,589,244	5,400,051	4,456,006	4,825,079	2,199,996	<u>RECETTES DES USINES MUNICIPALES</u>
17,105,351	1,546,384	930,981	1,569,271	729,007	Non-génératrices
57,483,893	3,853,667	3,525,025	3,255,808	1,470,989	Génératrices
57,386,465	3,775,552	-	-	1,245,739	Hydrauliques
97,428	78,115	3,525,025	3,255,808	225,250	A combustible
19,995,824	1,778,541	1,125,403	1,680,385	6,462,363	Recettes des usines non-génératrices
65,927,794	9,403,931	5,891,801	7,472,031	14,016,708	Recettes des usines génératrices
65,800,885	9,224,302	-	3,098,899	13,434,127	Recettes des usines hydrauliques
126,909	179,629	5,891,801	4,373,132	582,581	Recettes des usines à combustible
X 26.73	21.85	41.46	44.90	28.16	Moyenne de recettes par H.P. de machinerie primaire
X 26.39	21.10	41.46	41.08	26.27	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
X 33.96	27.23	49.10	53.95	34.50	Moyenne de recettes par Kv.A. de capacité des dynamos
X 33.52	26.16	49.10	49.12	32.23	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
.55	.49	2.81	1.58	.71	Moyenne de recettes par Kw. heure (cents)
28.21	44.76	41.87	33.70	30.92	Moyenne de recettes par abonnés d'éclairage domestique
98.24	118.04	122.95	134.77	145.41	Moyenne de recettes par abonnés d'éclairage commercial
237.42	131.63	332.33	152.48	190.60	Moyenne de recettes par abonnés pour petite force motrice
12,758.86	1,079.82	9,165.50	4,243.87	9,696.17	Moyenne de recettes par abonnés pour grosse force motrice
1.21	1.02	4.59	4.58	2.54	Moyenne de recettes par Kw. heure-service domestique et de ferme (cents)
1.35	1.92	4.62	3.92	2.90	Moyenne de recettes par Kw. heure - service commercial (cents)

^ Affecté par énergie achetée d'une autre province.

X Adjusté pour achats de courant des usines du Québec.

(1) Revenu brut moins le coût de l'énergie échangée entre stations.



TABLE 6 - EXPENSES, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<b>TOTAL EXPENSES</b> .....	135,104,091	313,871	7,611,130	2,923,815	34,387,13
Per cent of total for Canada .....	100.00	0.23	5.63	2.17	25.4
Salaries and wages .....	39,521,365	117,991	1,726,999	797,853	11,408,29
Fuel .....	5,098,761	171,480	1,599,099	707,070	54,43
Taxes (x) .....	19,125,746	22,267	1,094,546	214,503	10,201,17
Cost of power .....	71,358,219	2,133	3,390,486	1,204,389	12,723,22
<b>TOTAL FOR COMMERCIAL STATIONS</b> .....	60,893,580	266,984	5,948,811	1,523,848	25,001,21
Salaries and wages .....	17,046,275	103,884	1,260,272	403,558	8,138,95
Fuel .....	2,880,321	138,700	1,228,867	249,170	8,52
Taxes .....	17,066,092	22,267	1,041,750	214,240	9,479,27
Cost of power .....	23,900,892	2,133	2,417,922	656,880	7,574,46
Non-generating stations .....	12,431,142	2,159	1,011,222	883,568	164,84
Generating stations .....	48,462,438	264,825	4,937,589	640,280	24,836,36
Hydraulic stations .....	41,360,295	6,004	690,476	204,563	24,816,17
Fuel stations .....	7,102,143	258,821	4,247,113	435,717	20,13
<b>TOTAL FOR MUNICIPAL STATIONS</b> .....	74,210,511	46,887	1,662,519	1,399,967	9,585,92
Salaries and wages .....	22,475,090	14,107	466,727	394,295	3,269,34
Fuel .....	2,218,440	32,780	170,232	457,900	45,92
Taxes .....	2,059,654	-	52,796	263	721,8
Cost of power .....	47,457,327	-	972,564	547,509	5,348,7
Non-generating stations .....	39,336,339	-	896,870	632,554	571,0
Generating stations .....	34,874,172	46,887	765,449	767,413	8,814,8
Hydraulic stations .....	30,683,424	-	270,538	44,843	8,750,5
Fuel stations .....	6,474,142	46,887	494,911	722,570	64,3
<b>TOTAL EXPENSES FOR NON-GENERATING STATIONS</b> .....	51,767,481	2,159	1,908,092	1,516,122	735,9
Salaries and wages .....	10,145,087	-	372,943	293,084	216,3
Fuel .....	15,991	-	107	-	-
Taxes .....	1,806,120	26	184,562	86,381	8,2
Cost of power .....	39,800,283	2,133	1,350,480	1,136,657	511,3
<b>TOTAL EXPENSES FOR GENERATING STATIONS</b> .....	83,336,610	311,712	5,703,038	1,407,693	33,651,3
Salaries and wages .....	29,376,278	117,991	1,554,056	504,769	11,191,3
Fuel .....	5,082,770	171,480	1,398,992	707,070	54,4
Taxes .....	17,319,626	22,241	909,984	128,122	10,192,3
Cost of power .....	31,557,936	-	2,040,006	67,732	12,211,3
Hydraulic stations .....	72,043,719	6,004	961,014	249,406	33,566,3
Fuel stations .....	13,576,285	305,708	4,742,024	1,158,287	84,3

(x) Sales tax not included (see page 7)

/ Includes only the four items listed

TABLEAU 6 - <sup>4</sup> DEPENSES, 1945

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
5,553,925	4,034,459	3,813,325	4,296,824	14,569,612	<u>TOTAL DES DEPENSES</u>
46.89	2.99	2.82	3.18	10.64	Pourcentage du total pour le Canada
5,826,660	2,923,342	1,240,585	1,462,159	4,017,480	Salaires et gages
41,416	52,547	1,246,094	865,318	561,299	Combustible
2,761,487	244,571	423,552	627,796	3,535,872	Taxes (x)
4,724,562	813,999	903,114	1,341,551	6,254,961	Achat d'énergie électrique
0,053,555	1,611,502	1,462,799	1,875,906	13,148,963	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,444,760	959,035	489,113	778,695	3,468,007	Salaires et gages
16,867	16,588	446,098	264,602	510,909	Combustible
1,892,075	141,581	360,801	494,138	3,419,966	Taxes
6,699,853	494,298	166,787	338,471	5,750,081	Achat d'énergie électrique
2,658,960	528,378	146,319	47,435	6,988,255	Usines non-génératrices
7,594,595	1,083,124	1,516,480	1,828,471	6,160,708	Usines génératrices
7,380,413	1,035,085	-	1,262,565	5,965,013	Usines hydrauliques
14,182	48,039	1,516,480	565,906	195,695	Usines à combustible
3,300,370	2,422,957	2,350,526	2,420,918	1,220,649	<u>TOTAL POUR LES USINES MUNICIPALES</u>
4,581,900	1,964,307	751,472	683,464	549,473	Salaires et gages
24,549	35,959	799,996	600,716	50,390	Combustible
869,412	102,990	62,751	133,658	115,906	Taxes
3,024,509	519,701	736,327	1,003,080	504,880	Achat d'énergie électrique
3,496,786	1,061,370	851,907	1,354,455	471,317	Usines non-génératrices
9,803,584	1,361,587	1,498,619	1,066,463	749,332	Usines génératrices
9,766,665	1,315,603	-	-	535,267	Usines hydrauliques
2,320,313	45,984	1,498,619	1,066,463	214,065	Usines à combustible
3,155,746	1,589,748	998,226	1,401,890	7,459,572	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
3,416,796	754,031	134,471	253,141	1,704,294	Salaires et gages
6,773	7,669	-	-	1,442	Combustible
331,091	14,049	89,072	118,566	974,139	Taxes
3,401,086	813,999	774,683	1,030,183	4,779,697	Achat d'énergie électrique
3,198,179	2,444,711	2,815,099	2,894,934	6,910,040	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
3,409,864	2,169,311	1,106,114	1,209,018	2,313,186	Salaires et gages
34,643	44,878	1,246,094	865,318	559,857	Combustible
3,430,396	230,522	334,460	509,230	2,561,733	Taxes
3,323,276	-	128,431	311,368	1,475,264	Achat d'énergie électrique
3,147,078	2,350,688	-	1,262,565	6,500,280	Usines hydrauliques
3,334,495	94,023	2,815,099	1,632,369	409,760	Usines à combustible

<sup>4</sup> Ne comprend que les quatre item énumérés.

(x) Taxe des ventes non comprises (Voir p. 7).

TABLE 7 - EMPLOYEES, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	21,283	85	1,097	658	6,224
Per cent of total for Canada .....	100.00	0.40	5.15	3.09	29.24
Officers, clerks, other salaried employees, etc. ..	7,260	27	374	184	1,718
Employees on wages .....	14,023	58	723	474	4,506
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	9,401	72	711	266	4,681
Officers, clerks, other salaried employees, etc. ...	2,674	23	206	82	1,010
Employees on wages .....	6,727	49	505	184	3,671
Non-generating .....	1,188	-	138	108	33
Generating .....	8,213	72	573	158	4,648
Hydraulic .....	7,129	4	173	77	4,639
Fuel .....	1,084	68	400	81	9
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	11,882	13	386	392	1,543
Officers, clerks, other salaried employees, etc. ...	4,586	4	168	102	708
Employees on wages .....	7,296	9	218	290	835
Non-generating .....	4,607	-	102	91	127
Generating .....	7,275	13	284	301	1,416
Hydraulic .....	6,240	-	190	30	1,400
Fuel .....	1,035	13	94	271	16
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	5,795	-	240	199	160
Officers, clerks, other salaried employees, etc. ...	2,682	-	90	97	64
Employees on wages .....	3,113	-	150	102	96
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	15,488	85	857	459	6,064
Officers, clerks, other salaried employees, etc. ...	4,578	27	284	87	1,654
Employees on wages .....	10,910	58	573	372	4,410
Hydraulic .....	13,369	4	363	107	6,039
Fuel .....	2,119	81	494	352	25



TABLEAU 7 -- EMPLOYÉS, 1945

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
8,240	1,589	719	743	1,928	<u>TOTAL DU PERSONNEL OCCUPE</u>
38.72	7.47	3.38	3.49	9.06	Pourcentage du total pour le Canada
3,086	581	183	275	832	Administrateurs, directeurs, commis et tous employés des bureaux
5,154	1,008	536	468	1,096	Ouvriers et journaliers
753	545	355	399	1,619	<u>PERSONNEL DES USINES COMMERCIALES</u>
201	227	71	158	696	Administrateurs, directeurs, commis et tous employés des bureaux
552	318	284	241	923	Ouvriers et journaliers
81	12	48	10	758	Non-génératrices
672	533	307	389	861	Génératrices
667	514	-	231	824	Hydrauliques
5	19	307	158	37	Combustible
7,487	1,044	364	344	309	<u>PERSONNEL DES USINES MUNICIPALES</u>
2,885	354	112	117	136	Administrateurs, directeurs, commis et tous employés des bureaux
4,602	690	252	227	173	Ouvriers et journaliers
3,621	420	56	123	67	Non-génératrices
3,866	624	308	221	242	Génératrices
3,854	605	-	-	161	Hydrauliques
12	19	308	221	81	Combustible
3,702	432	104	133	825	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,735	99	35	74	486	Administrateurs, directeurs, commis et tous employés des bureaux
1,967	333	69	59	337	Ouvriers et journaliers
4,538	1,157	615	610	1,103	<u>PERSONNEL DES USINES GENERATRICES</u>
1,351	482	148	201	344	Administrateurs, directeurs, commis et tous employés des bureaux
3,187	675	467	409	759	Ouvriers et journaliers
4,521	1,119	-	231	985	Hydrauliques
17	38	615	379	118	Combustible

TABLE 8 - NUMBER OF CUSTOMERS, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>NUMBER OF CUSTOMERS</u> .....	2,333,230	7,757	98,689	71,127	648,611
Per cent of total for Canada .....	100.00	.33	4.23	3.05	27.80
Domestic service .....	1,987,360	6,387	84,011	62,175	558,865
Commercial light .....	285,402	1,226	11,846	7,445	76,189
Power (small) .....	46,955	122	2,565	1,312	10,990
Power (large) .....	10,955	8	188	131	1,677
Street lighting .....	2,558	14	79	64	890
<u>COMMERCIAL STATIONS</u> .....	766,554	6,381	65,615	28,588	302,690
Domestic service .....	642,736	5,254	55,663	23,878	261,153
Commercial light .....	101,792	1,026	8,026	3,898	34,585
Power (small) .....	16,320	81	1,794	708	5,071
Power (large) .....	4,256	7	92	83	1,049
Street lighting .....	1,450	13	40	21	832
Non-generating .....	218,427	115	25,184	17,455	4,630
Generating .....	548,127	6,266	40,431	11,133	298,060
Hydraulic .....	456,492	411	11,291	2,492	297,501
Fuel .....	91,635	5,855	29,140	8,641	559
<u>MUNICIPAL STATIONS</u> .....	1,566,676	1,376	33,074	42,539	345,921
Domestic service .....	1,344,624	1,133	28,348	38,297	297,712
Commercial light .....	183,610	200	3,820	3,547	41,604
Power (small) .....	30,635	41	771	604	5,919
Power (large) .....	6,699	1	96	48	628
Street lighting .....	1,108	1	39	43	58
Non-generating .....	858,708	-	17,171	16,268	22,904
Generating .....	707,968	1,376	15,903	26,271	323,017
Hydraulic .....	593,569	-	8,650	2,105	321,722
Fuel .....	114,399	1,376	7,253	24,166	1,295
<u>NON-GENERATING STATIONS</u> .....	1,077,135	115	42,355	33,723	27,534
Domestic service .....	920,413	82	36,702	29,001	24,433
Commercial light .....	130,774	32	4,653	4,016	2,515
Power (small) .....	21,456	-	898	641	493
Power (large) .....	3,738	-	69	44	48
Street lighting .....	754	1	33	21	45
<u>GENERATING STATIONS</u> .....	1,256,095	7,642	56,334	37,404	621,077
Hydraulic stations .....	1,050,061	411	19,941	4,597	619,223
Domestic service .....	902,851	321	17,255	3,895	533,020
Commercial light .....	120,694	87	2,177	580	73,264
Power (small) .....	18,519	2	405	93	10,470
Power (large) .....	6,702	-	77	24	1,628
Street lighting .....	1,295	1	27	5	841
Fuel stations .....	206,034	7,231	36,393	32,807	1,854
Domestic service .....	164,096	5,984	30,054	29,279	1,412
Commercial .....	33,934	1,107	5,016	2,849	410
Power (small) .....	6,980	120	1,262	578	27
Power (large) .....	515	8	42	63	1
Street lighting .....	509	12	19	38	4
Average number of domestic service customers per 100 of population .....	16.40	6.94	13.53	13.29	15.69

TABLEAU 3 - NOMBRE D'USAGERS, 1945

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
963,577	120,953	81,575	112,433	228,508	<u>NOMBRE D'USAGERS</u>
41.30	5.18	3.50	4.82	9.79	Pourcentage du total pour le Canada
839,968	94,673	61,285	87,005	192,991	Service domestique
105,113	18,564	16,870	18,434	29,715	Eclairage commercial
14,266	3,795	2,940	6,192	4,773	Force motrice (petite)
3,629	3,700	120	589	913	Force motrice (grosse)
601	221	360	213	116	Eclairage des rues
65,284	36,570	30,557	39,223	191,646	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
56,574	27,388	22,574	27,619	162,633	Service domestique
7,502	7,063	6,598	8,610	24,484	Eclairage commercial
798	470	1,151	2,538	3,709	Force motrice (petite)
351	1,627	48	260	739	Force motrice (grosse)
59	22	186	196	81	Eclairage des rues
14,423	8,550	3,266	2,646	142,158	Non-génératrices
50,861	28,020	27,291	36,577	49,488	Génératrices
50,441	26,593	-	21,046	46,917	Hydrauliques
420	1,627	27,291	15,531	2,571	Combustible
898,293	84,383	51,018	73,210	36,862	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
783,394	67,285	38,711	59,586	30,358	Service domestique
97,611	11,501	10,272	9,824	5,231	Eclairage commercial
13,468	3,325	1,789	3,654	1,064	Force motrice (petite)
3,278	2,073	72	329	174	Force motrice (grosse)
542	199	174	17	35	Eclairage des rues
707,998	28,026	17,053	32,112	17,176	Non-génératrices
190,295	56,357	33,965	41,098	19,686	Génératrices
188,765	54,994	-	-	17,333	Hydrauliques
1,530	1,363	33,965	41,098	2,353	Combustible
722,421	36,576	20,319	34,758	159,334	<u>NOMBRE D'USAGERS DES USINES NON-GÉNÉRATRICES</u>
622,064	28,935	15,416	28,444	135,336	Service domestique
85,017	6,074	3,797	4,321	20,549	Eclairage commercial
12,370	1,121	1,014	1,914	3,005	Force motrice (petite)
2,642	250	32	66	587	Force motrice (grosse)
328	196	60	13	57	Eclairage des rues
241,156	84,377	61,256	77,675	69,174	<u>NOMBRE D'USAGERS DES USINES GÉNÉRATRICES</u>
239,206	81,387	-	21,046	64,250	Usines hydrauliques
216,301	63,551	-	14,637	53,871	Service domestique
19,864	11,845	-	4,512	8,365	Eclairage commercial
1,788	2,534	-	1,571	1,656	Force motrice (petite)
985	3,447	-	224	317	Force motrice (grosse)
268	10	-	102	41	Eclairage des rues
1,950	2,990	61,256	56,629	4,924	Usines à combustible
1,603	2,187	45,869	43,924	3,784	Service domestique
232	645	13,073	9,601	1,001	Eclairage commercial
108	140	1,926	2,707	112	Force motrice (petite)
2	3	88	299	9	Force motrice (grosse)
5	15	300	98	18	Eclairage des rues
20.98	12.86	7.25	10.53	19.98	Moyenne de consommateurs d'éclairage électrique par 100 habitants



TABLE 9 - POLE LINE MILEAGE, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	83,178	319	4,587	3,592	16,059
Per cent of total for Canada .....	100.00	0.38	5.51	4.32	19.31
Miles of steel towers .....	5,369	-	21	243	1,401
Miles of steel poles .....	760	-	414	-	260
Miles of wooden poles .....	74,477	316	4,138	3,347	13,645
Miles of concrete poles .....	529	-	-	1	-
Miles of underground and submarine cables .....	2,043	3	14	1	753
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	31,117	297	2,253	733	13,168
Not generating .....	5,462	11	466	271	245
Generating .....	25,655	286	1,787	462	12,923
Hydraulic .....	22,168	25	1,093	260	12,911
Fuel .....	3,487	261	694	202	12
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	52,061	22	2,334	2,859	2,891
Not generating .....	11,022	-	440	182	195
Generating .....	41,039	22	1,894	2,677	2,696
Hydraulic .....	34,982	-	1,393	40	2,668
Fuel .....	6,057	22	501	2,637	28
<u>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</u> .....	16,484	11	906	453	440
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	66,694	308	3,681	3,139	15,619
Hydraulic .....	57,150	25	2,486	300	15,579
Fuel .....	9,544	283	1,195	2,839	40

TABLE 10 - AUXILIARY PLANT EQUIPMENT, 1945

<u>TOTAL PRIMARY POWER</u> .....	H.P.	173,312	135	2,504	2,725	37,311
Per cent of total for Canada .....		100.00	0.08	1.44	1.57	21.53
Steam reciprocating engines .....	No.	22	1	3	2	1
Total capacity .....	H.P.	9,203	75	1,190	800	60
Steam turbines .....	No.	39	-	1	3	8
Total capacity .....	H.P.	154,909	-	670	1,925	36,224
Gas and oil engines .....	No.	50	1	7	-	5
Total capacity .....	H.P.	9,200	60	644	-	1,027
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	146,556	46	1,948	2,035	33,894
<u>COMMERCIAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	85,866	135	2,264	2,725	3,675
Steam reciprocating engines .....	No.	15	1	3	2	1
Total capacity .....	H.P.	5,078	75	1,190	800	60
Steam turbines .....	No.	27	-	1	3	3
Total capacity .....	H.P.	75,530	-	670	1,925	3,500
Gas and oil engines .....	No.	29	1	4	-	3
Total capacity .....	H.P.	5,258	60	404	-	115
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	69,538	46	1,763	2,035	3,125
<u>MUNICIPAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	87,446	-	240	-	33,656
Steam reciprocating engines .....	No.	7	-	-	-	-
Total capacity .....	H.P.	4,125	-	-	-	-
Steam turbines .....	No.	12	-	-	-	5
Total capacity .....	H.P.	79,379	-	-	-	32,724
Gas and oil engines .....	No.	21	-	3	-	2
Total capacity .....	H.P.	3,942	-	240	-	912
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	77,018	-	185	-	30,769

TABLEAU 9 - LONGUEUR (EN MILES) DES LIGNES SUR POTEAUX, 1945

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
38,251	4,534	4,252	4,782	6,802	<u>LONGUEUR (EN MILES) DES LIGNES SUR POTEAUX</u>
45.99	5.45	5.11	5.75	8.18	Pourcentage du total pour tout le Canada
2,863	747	-	31	63	Milles de pylones d'acier
83	3	-	-	-	Milles de poteaux d'acier
33,753	3,749	4,227	4,670	6,632	Milles de poteaux de bois
527	1	-	-	-	Milles de poteaux de ciment
1,025	54	25	81	107	Milles de cables souterrains et sous-marins
2,004	1,415	1,805	3,843	5,599	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES COMMERCIALES</u>
346	221	657	65	3,180	Non-génératrices
1,658	1,194	1,148	3,778	2,419	Génératrices
1,652	1,121	-	2,769	2,337	Hydrauliques
6	73	1,148	1,009	82	A combustible
36,247	3,119	2,447	939	1,203	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES MUNICIPALES</u>
7,028	2,217	207	440	313	Non-génératrices
29,219	902	2,240	499	890	Génératrices
29,185	875	-	-	821	Hydrauliques
34	27	2,240	499	69	A combustible
7,374	2,438	864	505	3,493	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
30,877	2,096	3,388	4,277	3,309	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES GENERATRICES</u>
30,837	1,996	-	2,769	3,158	Hydrauliques
40	100	3,388	1,508	151	A combustible

TABLEAU 10 - OUTILLAGE AUXILIAIRE, 1945

41,060	18,240	-	18,963	52,374	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
23.69	10.53	-	10.94	30.22	Pourcentage du total pour tout le Canada
4	1	-	7	3	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,600	1,750	-	2,753	975	Capacité totale ..... H.P.
4	4	-	4	15	Turbines à vapeur ..... Nomb.
38,000	16,490	-	15,000	46,600	Capacité totale ..... H.P.
4	-	-	7	26	Moteurs à gaz et à pétrole ..... Nomb.
1,460	-	-	1,210	4,799	Capacité totale ..... H.P.
33,309	16,870	-	16,662	41,790	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
9,960	-	-	18,963	48,144	<u>USINES COMMERCIALES</u>
-	-	-	7	1	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
-	-	-	2,753	200	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	-	-	4	14	Capacité totale ..... H.P.
8,500	-	-	15,000	45,935	Turbines à vapeur ..... Nomb.
4	-	-	7	10	Capacité totale ..... H.P.
1,460	-	-	1,210	2,009	Moteurs à gaz et à pétrole ..... Nomb.
7,094	-	-	16,662	38,811	Capacité totale ..... H.P.
51,100	18,240	-	-	4,230	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
4	1	-	-	2	<u>USINES MUNICIPALES</u>
1,600	1,750	-	-	775	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
2	4	-	-	1	Machines à vapeur, à mouvement alternatif ..... Nomb.
9,500	16,490	-	-	665	Capacité totale ..... H.P.
-	-	-	-	16	Turbines à vapeur ..... Nomb.
-	-	-	-	2,790	Capacité totale ..... H.P.
3,215	16,370	-	-	2,379	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
					<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.

TABLE 11 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.	9,840,259	9,350	206,944	152,487	5,438,158
Per cent of total for Canada ..... H.P.	100.00	0.10	2.10	1.55	55.28
Water wheels and turbines ..... No.	831	6	57	17	293
Total capacity ..... H.P.	9,216,564	363	108,065	107,010	5,397,832
Steam reciprocating engines ..... No.	48	1	4	6	3
Total capacity ..... H.P.	17,730	75	2,990	2,880	165
Steam turbines ..... No.	118	4	19	9	9
Total capacity ..... H.P.	548,200	6,680	92,786	41,305	36,374
Gas and oil engines ..... No.	560	13	22	8	13
Total capacity ..... H.P.	57,765	2,232	3,103	1,292	3,787
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	8,182,323	6,993	171,170	130,397	4,607,366
Per cent of total for Canada ..... Kv.A.	100.00	0.09	2.09	1.59	56.51
Dynamos, A.C. .... No.	1,315	21	100	38	311
Total capacity ..... Kv.A.	8,176,883	6,993	170,870	130,197	4,607,348
Dynamos, D.C. .... No.	216	-	1	1	1
Total capacity ..... Kw.	5,440	-	300	200	200
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	6,379,987	7,565	117,989	112,555	4,369,677
Water wheels and turbines ..... No.	492	6	18	11	217
Total capacity ..... H.P.	6,098,240	363	26,020	94,150	4,365,677
Steam reciprocating engines ..... No.	30	1	4	6	1
Total capacity ..... H.P.	10,355	75	2,990	2,880	60
Steam turbines ..... No.	67	4	15	5	4
Total capacity ..... H.P.	240,940	6,680	86,845	14,925	3,650
Gas and oil engines ..... No.	379	8	7	2	5
Total capacity ..... H.P.	30,452	447	2,134	600	290
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	5,296,575	5,507	98,216	96,066	3,648,311
Dynamos, A.C. .... No.	768	16	43	22	22
Total capacity ..... Kv.A.	5,292,975	5,507	97,916	95,866	3,648,290
Dynamos, D.C. .... No.	176	-	1	1	1
Total capacity ..... Kw.	3,600	-	300	200	200
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	3,460,272	1,785	88,955	39,932	1,068,480
Water Wheels and turbines ..... No.	339	-	39	6	7
Total capacity ..... H.P.	3,118,324	-	82,045	12,860	1,032,160
Steam reciprocating engines ..... No.	18	-	-	-	10
Total capacity ..... H.P.	7,375	-	-	-	-
Steam turbines ..... No.	51	-	4	4	-
Total capacity ..... H.P.	307,260	-	5,941	26,380	32,720
Gas and oil engines ..... No.	181	5	15	6	-
Total capacity ..... H.P.	27,313	1,785	969	692	3,480
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	2,885,748	1,486	72,954	34,331	959,000
Dynamos, A.C. .... No.	547	5	57	16	-
Total capacity ..... Kv.A.	2,883,908	1,486	72,954	34,331	959,000
Dynamos, D.C. .... No.	40	-	-	-	-
Total capacity ..... Kw.	1,840	-	-	-	-



TABLEAU 11 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1945

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,331,620	530,054	169,253	222,800	779,593	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H.P.
23.69	5.39	1.72	2.27	7.92	Pourcentage du total pour le Canada .....
321	43	-	9	85	Turbines et roues hydrauliques ..... Nomb.
2,289,057	508,300	-	91,000	714,937	Capacité totale ..... H.P.
7	2	1	16	8	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,720	1,770	750	5,936	1,444	Capacité totale ..... H.P.
4	6	26	21	20	Turbines à vapeur ..... Nomb.
38,000	17,740	144,310	117,065	53,940	Capacité totale ..... H.P.
16	28	250	137	73	Moteurs à gaz et à pétrole ..... Nomb.
2,843	2,244	24,193	8,799	9,272	Capacité totale ..... H.P.
1,874,238	427,506	142,919	186,321	635,413	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
22.91	5.22	1.75	2.28	7.76	Pourcentage du total pour le Canada .....
344	75	138	108	180	Dynamos, C.A. .... Nomb.
1,874,228	427,474	141,207	183,347	635,221	Capacité totale ..... Kv.A.
1	4	137	62	9	Dynamos, C.D. .... Nomb.
10	32	1,712	2,974	192	Capacité totale ..... Kw.
482,010	354,524	59,487	122,485	753,695	<u>USINES COMMERCIALES</u>
140	23	-	9	68	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
471,647	353,300	-	91,000	696,088	Turbines et roues hydrauliques ..... Nomb.
1	1	-	12	4	Capacité totale ..... H.P.
15	20	-	3,701	614	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	-	12	6	19	Capacité totale ..... H.P.
8,500	-	46,765	20,300	53,275	Turbines à vapeur ..... Nomb.
8	18	178	120	33	Capacité totale ..... H.P.
1,848	1,204	12,722	7,484	3,718	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
406,684	279,085	48,840	98,246	615,618	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
149	41	76	81	119	Dynamos, C.A. .... Nomb.
406,674	279,079	47,722	96,472	615,446	Capacité totale ..... Kv.A.
1	1	107	56	8	Dynamos, C.D. .... Nomb.
10	6	1,118	1,774	172	Capacité totale ..... Kw.
1,849,610	175,530	109,766	100,315	25,898	<u>USINES MUNICIPALES</u>
181	20	-	-	17	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
1,817,410	155,000	-	-	18,849	Turbines et roues hydrauliques ..... Nomb.
6	1	1	4	4	Capacité totale ..... H.P.
1,705	1,750	750	2,235	830	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	6	14	15	1	Capacité totale ..... H.P.
29,500	17,740	97,545	96,765	665	Turbines à vapeur ..... Nomb.
8	10	72	17	40	Capacité totale ..... H.P.
995	1,040	11,471	1,315	5,554	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
467,554	148,421	94,079	88,075	19,795	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
195	34	62	27	61	Dynamos, C.A. .... Nomb.
467,554	148,395	93,485	86,875	19,775	Capacité totale ..... Kv.A.
-	3	30	6	1	Dynamos, C.D. .... Nomb.
-	26	594	1,200	20	Capacité totale ..... Kw.

TABLE 12 - MAIN PLANT EQUIPMENT, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	100.00	0.10	2.11	1.55	55.87
Water wheels and turbines ..... No.	831	6	57	17	293
Steam reciprocating engines ..... H.P.	9,215,564	363	108,035	107,010	5,327,832
Steam turbines ..... No.	26	-	1	4	2
Gas and oil engines ..... H.P.	8,527	-	1,800	2,080	105
Steam turbines ..... No.	79	4	18	6	1
Total Capacity ..... H.P.	393,291	6,680	92,116	39,380	150
Gas and oil engines ..... No.	510	12	15	8	8
Total Capacity ..... H.P.	48,365	2,172	2,459	1,292	2,760
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	0.09	2.10	1.60	56.91
Dynamos, A.C. .... No.	1,217	26	91	33	301
Total capacity ..... Kv.A.	8,031,727	6,945	169,222	128,162	4,573,452
Dynamos, D.C. .... No.	213	-	-	1	1
Total capacity ..... Kw.	4,040	-	-	200	20
<b>COMMERCIAL STATIONS</b>					
<b>WATER POWER</b> ..... H.P.					
Per cent of total for Canada .....	100.00	0.12	1.84	1.74	69.37
Water wheels and turbines ..... No.	275	6	18	11	217
Total capacity ..... H.P.	6,098,240	363	26,020	94,150	4,365,672
Steam reciprocating engines ..... No.	15	-	1	4	-
Total capacity ..... H.P.	5,277	-	1,800	2,080	-
Steam turbines ..... No.	40	4	14	2	1
Total capacity ..... H.P.	165,410	6,680	86,175	13,000	150
Gas and oil engines ..... No.	350	7	3	2	2
Total capacity ..... H.P.	25,194	387	1,730	600	180
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	0.10	1.85	1.80	69.74
Dynamos, A.C. .... No.	709	15	37	17	218
Total capacity ..... Kv.A.	5,224,837	5,459	96,453	93,831	3,645,168
Dynamos, D.C. .... No.	173	-	-	1	1
Total capacity ..... Kw.	2,200	-	-	200	20
<b>HYDRAULIC STATIONS</b>					
<b>WATER POWER</b> ..... H.P.					
Per cent of total for Canada .....	100.00	0.05	2.63	1.18	30.68
Water wheels and turbines ..... No.	339	-	39	6	76
Total capacity ..... H.P.	5,118,324	-	82,045	12,860	1,032,160
Steam reciprocating engines ..... No.	11	-	-	-	2
Total capacity ..... H.P.	3,250	-	-	-	105
Steam turbines ..... No.	36	-	4	4	-
Total capacity ..... H.P.	227,691	-	5,941	26,380	-
Gas and oil engines ..... No.	120	5	12	6	6
Total capacity ..... H.P.	23,371	1,785	729	692	2,580
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	0.05	2.59	1.22	33.05
Dynamos, A.C. .... No.	502	5	54	10	83
Total capacity ..... Kv.A.	2,806,890	1,486	72,769	34,331	928,284
Dynamos, D.C. .... No.	40	-	-	-	-
Total capacity ..... Kw.	1,840	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	0.04	1.13	1.20	59.74
Dynamos, A.C. .... No.	826	5	57	16	291
Total capacity ..... Kv.A.	7,651,113	338	87,146	92,038	4,570,933
Dynamos, D.C. .... No.	4	-	-	1	1
Total capacity ..... Kw.	290	-	-	200	20
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	100.00	1.72	21.35	9.40	0.66
Dynamos, A.C. .... No.	391	15	34	17	10
Total capacity ..... Kv.A.	380,624	6,607	82,076	36,124	2,519
Dynamos, D.C. .... No.	209	-	-	-	-
Total capacity ..... Kw.	3,750	-	-	-	-



TABLEAU 12 - OUTILLAGE DES USINES PRINCIPALES, 1945

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,290,560	x 511,814	x 169,253	203,837	727,219	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
23.70	5.29	1.75	2.11	7.52	Pourcentage du total pour le Canada ..... Nomb.
321	43	-	9	85	Roues hydrauliques et turbines ..... Nomb.
2,289,057	508,300	-	91,000	714,937	Capacité totale ..... H.P.
3	1	1	9	5	Machines à vapeur, à mouvement alternatif ..... Nomb.
120	20	750	3,183	469	Capacité totale ..... H.P.
-	2	26	17	5	Turbines à vapeur ..... Nomb.
-	1,250	144,310	102,065	7,340	Capacité totale ..... H.P.
12	28	250	130	47	Moteurs à gaz et à pétrole ..... Nomb.
1,385	2,244	24,193	7,589	4,473	Capacité totale ..... H.P.
1,840,929	410,636	142,919	169,659	593,623	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
22.91	5.11	1.78	2.11	7.39	Pourcentage du total pour le Canada ..... Nomb.
334	70	188	92	138	Dynamos, C.A. .... Nomb.
1,840,919	410,604	141,207	167,785	593,431	Capacité totale ..... Kv.A.
1	4	137	60	9	Dynamos, C.D. .... Nomb.
10	32	1,712	1,874	192	Capacité totale ..... Kw.
<u>USINES COMMERCIALES</u>					
472,050	354,524	59,487	103,522	705,551	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
7.50	5.63	0.95	1.64	11.21	Pourcentage du total pour le Canada ..... Nomb.
140	23	-	9	68	Turbines et roues hydrauliques ..... Nomb.
471,647	353,300	-	91,000	696,088	Capacité totale ..... H.P.
1	1	-	5	3	Machines à vapeur, à mouvement alternatif ..... Nomb.
15	20	-	946	414	Capacité totale ..... H.P.
-	-	12	2	5	Turbines à vapeur ..... Nomb.
-	-	46,765	5,300	7,340	Capacité totale ..... H.P.
4	18	178	113	23	Moteurs à gaz et à pétrole ..... Nomb.
388	1,204	12,722	6,274	1,709	Capacité totale ..... H.P.
399,590	279,085	48,840	81,584	576,807	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
7.64	5.54	0.93	1.56	11.04	Pourcentage du total pour le Canada ..... Nomb.
145	41	76	65	95	Dynamos, C.A. .... Nomb.
399,580	279,079	47,722	80,910	576,635	Capacité totale ..... Kv.A.
1	1	107	54	8	Dynamos, C.D. .... Nomb.
10	6	1,118	674	172	Capacité totale ..... Kw.
<u>USINES MUNICIPALES</u>					
1,818,510	157,290	109,766	100,315	21,668	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
53.92	4.66	3.26	2.98	0.64	Pourcentage du total pour le Canada ..... Nomb.
181	20	-	-	17	Turbines et roues hydrauliques ..... Nomb.
1,817,410	155,000	-	-	18,849	Capacité totale ..... H.P.
2	-	1	4	2	Machines à vapeur, à mouvement alternatif ..... Nomb.
105	-	750	2,235	55	Capacité totale ..... H.P.
-	2	14	15	-	Turbines à vapeur ..... Nomb.
-	1,250	97,545	96,765	-	Capacité totale ..... H.P.
8	10	72	17	24	Moteurs à gaz et à pétrole ..... Nomb.
995	1,040	11,471	1,315	2,764	Capacité totale ..... H.P.
1,441,339	131,551	94,079	88,075	16,816	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
51.32	4.68	3.35	3.14	0.60	Pourcentage du total pour le Canada ..... Nomb.
189	29	62	27	43	Dynamos, C.A. .... Nomb.
1,441,339	131,525	93,485	86,875	16,796	Capacité totale ..... Kv.A.
-	3	30	6	1	Dynamos, C.D. .... Nomb.
-	26	594	1,200	20	Capacité totale ..... Kw.
<u>USINES HYDRAULIQUES</u>					
839,742	407,600	-	71,500	581,886	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
24.04	5.32	-	0.93	7.60	Pourcentage du total pour le Canada ..... Nomb.
320	43	-	9	85	Dynamos, C.A. .... Nomb.
839,742	407,600	-	71,500	581,816	Capacité totale ..... Kv.A.
-	-	-	-	2	Dynamos, C.D. .... Nomb.
-	-	-	-	10	Capacité totale ..... Kw.
<u>USINES A COMBUSTIBLE</u>					
1,187	3,036	142,919	98,159	11,737	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
0.51	0.79	37.18	25.54	3.05	Pourcentage du total pour le Canada ..... Nomb.
14	27	138	83	53	Dynamos, C.A. .... Nomb.
1,177	3,004	141,207	96,285	11,615	Capacité totale ..... Kv.A.
1	4	137	60	7	Dynamos, C.D. .... Nomb.
10	32	1,712	1,874	122	Capacité totale ..... Kw.

x - Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.



TABLE 13 - MAIN PLANT EQUIPMENT CLASSIFIED, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>PRIMARY POWER</b> ..... H.P.	9,666,947	9,215	204,440	149,762	5,400,847	2,290,560
Water wheels and turbines ..... No.	851	6	57	17	293	321
Total H.P.	9,216,564	363	108,065	107,010	5,397,832	2,289,057
Under 500 H.P. .... No.	125	6	18	2	30	47
Total H.P.	26,739	363	4,575	710	6,288	10,857
500 - 2,000 H.P. .... No.	208	-	20	4	61	112
Total H.P.	223,629	-	21,100	3,800	63,844	121,865
2,000 - 5,000 H.P. .... No.	125	-	12	6	35	52
Total H.P.	366,371	-	41,590	17,500	99,000	144,335
5,000 - 10,000 H.P. .... No.	103	-	7	1	33	31
Total H.P.	718,525	-	41,000	5,000	233,400	198,300
10,000 - 15,000 H.P. .... No.	83	-	-	-	28	46
Total H.P.	960,900	-	-	-	301,900	550,200
15,000 - 25,000 H.P. .... No.	59	-	-	4	20	12
Total H.P.	1,110,500	-	-	80,000	408,500	201,500
25,000 - 50,000 H.P. .... No.	78	-	-	-	57	6
Total H.P.	2,746,900	-	-	-	2,115,900	168,000
50,000 H.P. and up ..... No.	44	-	-	-	29	15
Total H.P.	3,065,000	-	-	-	2,169,000	894,000
Steam reciprocating engines ..... No.	26	-	1	4	2	3
Total H.P.	8,527	-	1,800	2,080	105	120
Under 500 H.P. .... No.	20	-	-	2	2	3
Total H.P.	2,017	-	-	280	105	120
500 H.P. and up ..... No.	6	-	1	2	-	-
Total H.P.	5,910	-	1,800	1,800	-	-
Steam turbines ..... No.	78	4	18	6	1	-
Total H.P.	393,291	3,680	92,116	39,380	150	-
Under 500 H.P. .... No.	5	-	1	-	1	-
Total H.P.	1,862	-	360	-	150	-
500 - 2,000 H.P. .... No.	19	3	2	-	-	-
Total H.P.	21,999	4,180	2,256	-	-	-
2,000 - 5,000 H.P. .... No.	29	1	8	3	-	-
Total H.P.	88,721	2,500	24,125	11,000	-	-
5,000 - 10,000 H.P. and up ..... No.	26	-	7	3	-	-
Total H.P.	281,219	-	65,375	28,380	-	-
Oil engines ..... No.	510	12	15	8	8	12
Total H.P.	48,565	2,172	2,459	1,292	2,760	1,383
<b>SECONDARY POWER</b> ..... No.	1,430	20	91	34	302	335
Dynamos, A.C. and D.C. .... Total Kv.A.	8,055,767	6,945	169,222	128,362	4,573,472	1,840,929
Dynamos, A.C. .... No.	1,217	20	91	33	301	334
Total Kv.A.	8,031,727	6,945	169,222	128,162	4,573,452	1,840,919
Under 50 Kv.A. .... No.	120	5	8	-	4	6
Total Kv.A.	3,413	136	218	-	159	198
50 - 200 Kv.A. .... No.	195	6	11	9	17	32
Total Kv.A.	21,034	493	1,211	1,052	1,692	4,007
200 - 500 Kv.A. .... No.	143	5	16	2	26	39
Total Kv.A.	44,690	1,486	4,988	675	9,206	12,327
500 - 1,000 Kv.A. .... No.	133	1	14	3	38	59
Total Kv.A.	94,169	625	9,395	2,250	27,600	41,870
1,000 - 5,000 Kv.A. .... No.	269	3	33	12	53	102
Total Kv.A.	630,838	4,205	88,735	29,475	114,608	215,385
5,000 - 10,000 Kv.A. .... No.	113	-	8	3	25	45
Total Kv.A.	796,762	-	52,175	24,710	166,020	343,592
10,000 - 15,000 Kv.A. .... No.	74	-	1	-	32	25
Total Kv.A.	802,325	-	12,500	-	333,660	267,040
15,000 - 25,000 Kv.A. .... No.	66	-	-	4	23	9
Total Kv.A.	1,232,750	-	-	70,000	454,250	169,000
25,000 - 50,000 Kv.A. .... No.	83	-	-	-	67	12
Total Kv.A.	3,033,757	-	-	-	2,366,257	515,500
50,000 Kv.A. and up ..... No.	21	-	-	-	16	5
Total Kv.A.	1,372,000	-	-	-	1,100,000	272,000
Dynamos, D.C. .... No.	213	-	-	1	1	1
Total Kw.	4,040	-	-	200	20	10
Under 50 Kw. .... No.	207	-	-	-	1	1
Total Kw.	2,427	-	-	-	20	10
50 - 200 Kw. .... No.	3	-	-	-	-	-
Total Kw.	263	-	-	-	-	-
200 - 500 Kw. .... No.	2	-	-	1	-	-
Total Kw.	600	-	-	200	-	-
500 Kw. and up ..... No.	1	-	-	-	-	-
Total Kw.	750	-	-	-	-	-

TABLEAU 13 - OUTILLAGE CLASSIFIÉ DES USINES PRINCIPALES, 1945

Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal	
511,814	169,253	203,837	727,219	6,294,121	3,372,826	<u>FORCE MOTRICE PRIMAIRE</u> ..... H.P.
43	-	9	85	492	339	<u>Turbines et roues hydrauliques</u> ..... Nomb.
508,800	-	91,000	714,937	6,098,240	3,118,324	Total H.P.
-	-	-	22	77	48	Moins de 500 H.P. .... Nomb.
-	-	-	3,946	14,810	11,929	Total H.P.
-	-	-	11	112	96	500 - 2,000 H.P. .... Nomb.
-	-	-	13,020	113,384	110,245	Total H.P.
4	-	2	14	71	54	2,000 - 5,000 H.P. .... Nomb.
12,800	-	8,000	43,346	211,021	155,350	Total H.P.
21	-	4	12	63	46	5,000 - 10,000 H.P. .... Nomb.
130,000	-	24,000	86,825	428,325	290,200	Total H.P.
4	-	-	5	37	46	10,000 - 15,000 H.P. .... Nomb.
50,000	-	-	58,800	410,800	550,100	Total H.P.
8	-	3	12	44	15	15,000 - 25,000 H.P. .... Nomb.
147,500	-	59,000	214,000	861,000	249,500	Total H.P.
6	-	-	9	72	6	25,000 - 50,000 H.P. .... Nomb.
168,000	-	-	295,000	2,578,900	168,000	Total H.P.
-	-	-	-	16	28	50,000 et plus H.P. .... Nomb.
-	-	-	-	1,480,000	1,583,000	Total H.P.
1	1	9	5	15	11	<u>Machines à vapeur, à mouvement alternatif</u> ..... Nomb.
20	750	3,183	469	5,277	3,250	Total H.P.
1	-	7	5	12	8	Moins de 500 H.P. .... Nomb.
20	-	1,623	469	1,677	940	Total H.P.
-	1	2	-	3	3	500 H.P. et plus .... Nomb.
-	750	1,560	-	3,600	2,310	Total H.P.
2	26	17	5	40	39	<u>Turbines à vapeur</u> ..... Nomb.
1,250	144,310	102,065	7,340	165,410	227,861	Total H.P.
1	1	1	-	1	4	Moins de 500 H.P. .... Nomb.
400	267	175	-	150	1,202	Total H.P.
1	7	2	4	11	8	500 - 2,000 H.P. .... Nomb.
850	8,373	2,000	4,340	13,723	8,276	Total H.P.
-	9	7	1	17	12	2,000 - 5,000 H.P. .... Nomb.
-	26,296	21,800	3,000	47,896	40,825	Total H.P.
-	9	7	-	11	15	5,000 - 10,000 H.P. .... Nomb.
-	109,374	78,090	-	103,641	177,576	Total H.P.
28	250	130	47	350	160	<u>Moteurs à gaz et à pétrole</u> ..... Nomb.
2,244	24,193	7,589	4,473	25,194	23,371	Total H.P.
74	275	152	147	882	548	<u>FORCE MOTRICE SECONDAIRE</u>
410,636	142,919	169,659	593,623	5,227,037	2,608,730	<u>Dynamos, C.A. &amp; C.D.</u> ..... Nomb.
70	138	92	138	709	508	Total Kv.A.
410,604	141,207	167,785	593,431	5,224,837	2,806,890	<u>Dynamos, C.D.</u> ..... Nomb.
15	34	30	18	79	41	Total Kv.A.
381	1,038	816	466	2,294	1,118	Moins de 50 Kv.A. .... Nomb.
7	42	30	41	119	76	Total Kv.A.
622	4,614	3,214	4,129	12,510	8,524	50 - 200 Kv.A. .... Nomb.
4	33	6	12	67	76	Total Kv.A.
1,220	9,989	1,450	3,349	20,580	24,110	200 - 500 Kv.A. .... Nomb.
1	6	2	9	75	58	Total Kv.A.
781	3,886	1,500	6,262	51,145	43,024	500 - 1,000 Kv.A. .... Nomb.
14	15	15	22	148	121	Total Kv.A.
46,350	34,180	44,000	53,900	349,833	281,005	1,000 - 5,000 Kv.A. .... Nomb.
11	4	3	14	66	47	Total Kv.A.
70,750	25,000	16,805	97,700	465,625	331,127	5,000 - 10,000 Kv.A. .... Nomb.
7	2	1	6	31	45	Total Kv.A.
76,000	25,000	12,500	75,625	363,725	438,600	10,000 - 15,000 Kv.A. .... Nomb.
11	2	5	12	50	16	Total Kv.A.
214,500	37,500	87,500	200,000	943,750	289,000	15,000 - 25,000 Kv.A. .... Nomb.
-	-	-	4	58	25	Total Kv.A.
-	-	-	152,000	1,915,375	1,118,382	25,000 - 50,000 Kv.A. .... Nomb.
-	-	-	-	16	5	Total Kv.A.
-	-	-	-	1,100,000	272,000	50,000 Kv.A. et plus .... Nomb.
4	137	60	9	173	40	Total Kv.A.
32	1,712	1,874	192	2,200	1,840	<u>Dynamos, C.D.</u> ..... Nomb.
4	135	57	9	171	36	Total Kw.
32	1,542	631	192	1,907	520	Moins de 50 Kw. .... Nomb.
-	2	1	-	1	2	Total Kw.
-	170	93	-	93	170	50 - 200 Kw. .... Nomb.
-	-	1	-	1	1	Total Kw.
-	-	400	-	200	400	200 - 500 Kw. .... Nomb.
-	-	1	-	-	1	Total Kw.
-	-	750	-	-	750	500 Kw. et plus .... Nomb.
						Total Kw.



TABLE 14 - ELECTRIC ENERGY GENERATED, 1945

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>ALL STATIONS</u>					
Total Kilowatt hours generated ..... (thousands)	40,130,054	16,753	600,429	598,700	22,227,012
Per cent of total for Canada .....	100.00	0.04	1.50	1.49	55.33
Kilowatt hours generated by non-generating stations .... (thousands)	532	-	1	-	-
Kilowatt hours generated by generating stations ..... (thousands)	40,129,522	16,753	600,428	598,700	22,227,012
K.v.A. capacity of generating stations .....	8,161,146	6,993	169,372	128,362	4,597,366
Ratio of output to maximum capacity ..... p.c.	56.13	27.35	40.47	53.24	55.19
Average kilowatt hours per Kv.A. ....	4,917	2,396	3,545	4,664	4,835
<u>GENERATING STATIONS</u>					
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	25,530,506	12,326	340,648	477,258	17,670,513
Kv.A. capacity .....	5,290,168	5,507	96,603	94,031	3,648,513
Ratio of output to maximum capacity ..... p.c.	55.09	25.55	40.25	57.95	55.29
Average kilowatt hours per Kv.A. ....	4,826	2,258	3,526	5,076	4,843
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	25,125,474	470	114,109	442,025	17,669,672
Kv.A. capacity .....	5,126,236	386	19,888	81,975	3,648,041
Ratio of output to maximum capacity ..... p.c.	55.95	13.90	65.50	61.55	55.30
Average kilowatt hours per Kv.A. ....	4,901	1,218	5,738	5,392	4,844
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	405,032	11,856	226,539	35,233	641
Kv.A. capacity .....	163,932	5,121	76,715	12,056	272
Ratio of output to maximum capacity ..... p.c.	28.21	26.43	33.71	33.36	26.91
Average kilowatt hours per Kv.A. ....	2,471	2,315	2,953	2,922	2,357
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	14,599,016	4,427	259,780	121,442	4,556,699
Kv.A. capacity .....	2,870,978	1,486	72,769	34,331	949,053
Ratio of output to maximum capacity ..... p.c.	58.05	34.01	40.75	40.38	54.81
Average kilowatt hours per Kv.A. ....	5,085	2,979	3,570	3,537	4,801
<u>Hydraulic stations</u>					
Kilowatt hours generated ..... (thousands)	14,094,661	-	243,186	30,766	4,550,158
Kv.A. capacity .....	2,650,546	-	67,408	10,263	946,806
Ratio of output to maximum capacity ..... p.c.	60.71	-	41.19	34.24	54.86
Average kilowatt hours per Kv.A. ....	5,318	-	3,608	2,999	4,806
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	504,355	4,427	16,594	90,676	6,541
Kv.A. capacity .....	220,432	1,486	5,361	24,068	2,247
Ratio of output to maximum capacity ..... p.c.	26.12	34.01	35.33	43.00	33.23
Average kilowatt hours per Kv.A. ....	2,288	2,979	3,095	3,767	2,911
<u>TOTAL HYDRAULIC STATIONS</u>					
Kilowatt hours generated ..... (thousands)	39,220,135	470	357,295	472,791	22,219,830
Kv.A. capacity .....	7,776,782	386	87,296	92,238	4,594,841
Ratio of output to maximum capacity ..... p.c.	57.57	13.90	46.72	58.52	55.21
Average kilowatt hours per Kv.A. ....	5,043	1,218	4,093	5,126	4,836
Kilowatt hours generated by water power ..... (thousands)	39,131,020	470	357,290	472,790	22,219,679
Kilowatt hours generated by auxiliary plants ..... (thousands)	89,115	-	5	1	151
<u>TOTAL FUEL STATIONS</u>					
Kilowatt hours generated ..... (thousands)	909,387	16,283	243,133	125,909	7,182
Kv.A. capacity .....	384,364	6,607	82,076	56,124	2,519
Ratio of output to maximum capacity ..... p.c.	27.01	28.13	35.81	39.78	32.55
Average kilowatt hours per Kv.A. ....	2,366	2,464	2,962	3,485	2,851
<u>CONSUMPTION OF ELECTRIC ENERGY (Thousands of Kilowatt Hours)</u>					
Total kilowatt hours generated .....	40,130,054	16,753	600,429	598,700	22,227,012
Kilowatt hours imported from the United States .....	15,916	-	-	8	296
Kilowatt hours imported from other provinces .....	-	-	-	7,567	11,555
Kilowatt hours exported to the United States .....	2,646,435	-	-	47,667	2,463
Kilowatt hours exported to other provinces .....	-	-	-	-	4,965,541
<u>KILOWATT HOURS FOR CONSUMPTION IN CANADA ..... (thousands)</u>					
Domestic service .....	37,499,535	16,753	600,429	558,608	17,270,859
Commercial light .....	3,365,498	5,217	70,099	45,958	507,274
Small power .....	1,613,733	3,327	47,167	31,030	396,246
Large power .....	640,674	1,429	64,664	13,825	136,578
Street lighting .....	28,083,248	4,410	337,234	433,778	14,741,790
Free service (other than street lighting) .....	226,218	406	5,899	4,781	43,384
Losses .....	64,327	66	205	187	50,351
	3,505,837	1,898	75,161	29,049	1,395,256

\* Excludes exports to other provinces and/or to the United States.



TABLEAU 14 - ENERGIE ELECTRIQUE GENEREE, 1945

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia & Yukon	
<u>TOUTES USINES</u>					
736,742	2,283,789	249,518	566,744	2,850,367	Total kw. heure générés .....(milliers)
26.76	5.69	0.62	1.41	7.10	Pourcentage du total pour le Canada .....
219	180	-	-	132	Kilowatt-heure générés par les usines non-génératrices ..... (milliers)
736,523	2,283,609	249,518	566,744	2,850,235	Kilowatt-heure générés par les usines génératrices ..... (milliers)
871,929	424,386	142,919	186,321	633,498	Capacité des usines génératrices en Kv.A. ....
65.48	61.43	19.93	34.73	51.36	Proportion de la production à la capacité maximum ..... p.c.
5,736	5,381	1,746	3,042	4,499	Moyenne de kilowatt-heure par Kv.A. ....
<u>USINES GENERATRICES</u> <u>USINES COMMERCIALES</u>					
<u>TOTAL</u>					
200,120	1,599,291	82,992	352,794	2,794,764	Kilowatt-heure générés ..... (milliers)
405,590	279,085	48,840	98,246	613,953	Capacité en Kv.A. ....
61.92	65.41	19.39	40.99	51.96	Proportion de la production à la capacité maximum ..... p.c.
5,424	5,730	1,699	3,591	4,552	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines Hydrauliques</u>					
199,808	1,597,916	-	331,115	2,770,359	Kilowatt-heure générés ..... (milliers)
405,250	278,100	-	88,162	604,434	Capacité en Kv.A. ....
61.96	65.59	-	42.88	52.32	Proportion de production à la capacité maximum ..... p.c.
5,428	5,746	-	3,756	4,583	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines à combustible</u>					
312	1,375	82,992	21,679	24,405	Kilowatt-heure générés ..... (milliers)
340	985	48,840	10,084	9,519	Capacité en Kv.A. ....
10.48	15.94	19.39	24.54	29.27	Proportion de production à la capacité maximum ..... p.c.
918	1,396	1,699	2,150	2,564	Moyenne de kilowatt-heure par Kv.A. ....
<u>USINES MUNICIPALES</u> <u>TOTAL</u>					
536,403	684,318	166,526	213,950	55,471	Kilowatt-heure générés ..... (milliers)
466,339	145,301	94,079	88,075	19,545	Capacité en Kv.A. ....
66.46	53.77	20.21	27.73	32.40	Proportion de la production à la capacité maximum ..... p.c.
5,822	4,710	1,770	2,429	2,838	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines Hydrauliques</u>					
534,973	683,085	-	-	52,493	Kilowatt-heure générés ..... (milliers)
465,492	143,250	-	-	17,327	Capacité en Kv.A. ....
66.48	54.43	-	-	34.58	Proportion de production à la capacité maximum ..... p.c.
5,824	4,768	-	-	3,029	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines à combustible</u>					
1,430	1,233	166,526	213,950	2,978	Kilowatt-heure générés ..... (milliers)
847	2,051	94,079	88,075	2,218	Capacité en Kv.A. ....
19.27	6.86	20.21	27.73	15.37	Proportion de la production à la capacité maximum ..... p.c.
1,688	601	1,770	2,429	1,546	Moyenne de kilowatt-heure par Kv.A. ....
<u>TOUTES USINES HYDRAULIQUES</u>					
734,781	2,281,001	-	331,115	2,822,852	Kilowatt-heure générés ..... (milliers)
870,742	421,350	-	88,162	621,761	Capacité en Kv.A. ....
65.50	61.79	-	42.88	51.83	Proportion de la production à la capacité maximum ..... p.c.
5,738	5,413	-	3,756	4,540	Moyenne de kilowatt-heure par Kv.A. ....
733,989	2,280,969	-	305,047	2,760,786	Kilowatt-heure générés par force motrice hydraulique ..... (milliers)
792	32	-	26,068	62,066	Kilowatt-heure générés par les usines auxiliaires ..... (milliers)
<u>TOUTES USINES A COMBUSTIBLE</u>					
1,742	2,608	249,518	235,629	27,383	Kilowatt-heure générés ..... (milliers)
1,187	3,036	142,919	98,159	11,737	Capacité en Kv.A. ....
16.75	9.81	19.93	27.40	26.63	Proportion de la production à la capacité maximum ..... p.c.
1,467	859	1,746	2,400	2,333	Moyenne de kilowatt-heure par Kv.A. ....
<u>CONSUMMATION D'ENERGIE ELECTRIQUE (En Milliers de Kw.H.)</u>					
736,742	2,283,789	249,518	566,744	2,850,367	Total de kilowatt-heure générés .....
-	261	44	117	15,190	Kilowatt-heure importés des Etats-Unis .....
57,974	-	-	13,859	-	Kilowatt-heure importés d'autres provinces .....
94,606	1,599	-	-	300	Kilowatt-heure exportés aux Etats-Unis .....
11,555	-	-	-	13,859	Kilowatt-heure exportés à d'autres provinces .....
<u>KILOWATT-HEURE CONSOMMES AU CANADA</u> ..... (milliers)					
88,555	2,282,651	249,562	580,720	2,851,398	Service domestique .....
63,044	416,499	58,402	63,962	235,043	Eclairage commercial .....
64,144	114,294	44,933	63,450	149,142	Petite force motrice .....
60,140	62,715	33,595	31,375	36,353	Grosse force motrice .....
82,687	1,405,260	79,176	333,383	2,065,530	Eclairage des rues .....
98,975	21,524	8,618	10,666	22,165	Service gratuit (autre que l'éclairage des rues) .....
2,394	38	61	2,893	8,132	Portes .....
77,171	262,521	24,777	74,991	335,033	

\* Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.

TABLE 15 - FUEL, 1945

	Bituminous Coal Charbon Bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA .....	543,646	2,756,465	660	5,030
Prince Edward Island .....	15,152	130,807	-	-
Nova Scotia .....	224,433	1,210,033	-	-
New Brunswick .....	109,343	685,455	-	-
Quebec .....	259	2,370	400	2,560
Ontario .....	280	2,287	260	2,470
Manitoba .....	1,790	6,278	-	-
Saskatchewan .....	112,577	444,105	-	-
Alberta .....	43,699	56,794	-	-
British Columbia and Yukon ..	36,113	218,336	-	-
	Fuel Oil and Diesel Oil Mazout et huile diesel		Wood Bois	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Gal. Gal.	\$	Cords Cordes	\$
CANADA .....	19,180,500	1,317,424	473	2,431
Prince Edward Island .....	397,578	40,459	-	-
Nova Scotia .....	246,952	26,459	-	-
New Brunswick .....	230,088	21,615	-	-
Quebec .....	481,097	48,520	200	900
Ontario .....	229,548	36,650	-	-
Manitoba .....	253,034	39,437	273	1,531
Saskatchewan .....	12,598,638	694,696	-	-
Alberta .....	727,654	103,879	-	-
British Columbia and Yukon ..	4,015,911	305,709	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu. ft.

TABLEAU 15 - COMBUSTIBLE, 1945

Lignite Coal Charbon Lignite		Gasolene Gasoline		Kerosene Kérosène	
Canadian - Canadien					
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
251,065	664,649	46,548	12,839	6,870	1,412
-	-	935	214	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	350	88	-	-
-	-	30	9	-	-
-	-	345	106	-	-
59,982	102,366	17,152	4,912	50	15
191,083	562,283	11,983	3,008	2,895	790
-	-	15,755	4,202	2,925	607
Manufactured Gas Gaz fabriqué		Natural Gas Gaz naturel		Other Fuel Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu.ft. 1,000 pds.cu.	\$	1,000 cu.ft. 1,000 pds.cu.	\$	\$	\$
9,656,576	162,876	2,001,574	138,016	37,919	5,098,761
-	-	-	-	-	171,480
9,634,116	162,328	-	-	279	1,399,099
-	-	-	-	-	707,070
-	-	-	-	-	54,458
-	-	-	-	-	41,416
-	-	-	-	5,195	52,547
-	-	-	-	-	1,246,094
2,460	548	2,001,574	138,016	-	865,518
-	-	-	-	32,445	561,299

Note: Tonne = 2,000 livres.  
Gallon = Impérial  
Corde = 128 pds.cu.











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Minister of Trade and Commerce

**CANADA**  
**DEPARTMENT OF TRADE AND COMMERCE**  
**DOMINION BUREAU OF STATISTICS**  
**TRANSPORTATION & PUBLIC UTILITIES DIVISION**

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**CENSUS OF INDUSTRY**

**1946**

**CENTRAL ELECTRIC STATIONS**  
**IN CANADA**



OTTAWA  
1948

Price 25 cents



DOMINION BUREAU OF STATISTICS  
TRANSPORTATION AND PUBLIC UTILITIES DIVISION  
OTTAWA

Dominion Statistician, HERBERT MARSHALL

Director, Transportation and Public Utilities Division, G.S. Wrong

20-1900

CENTRAL ELECTRIC STATION INDUSTRY, 1946

For the purpose of the annual census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 12 stations which were holding generating equipment classed as auxiliary plant equipment. Eight of them purchased all their electric energy and the remaining four generated only 1,035,000 kilowatt hours. This explains the rather anomalous item in table 12 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the output of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods.

Primary power produced for use in Canada (including all line losses) increased from 30,853,713,000 kilowatt hours in 1945 to 31,197,396,000 kilowatt hours, or by 1.1 per cent, but the consumption of secondary power rose from 6,645,824,000 to 8,067,487,000 kilowatt hours in 1946, or by 21.4 p.c.

Secondary power is off-peak and surplus power delivered as it is available. It is subject to interruption or variation daily and seasonally, and consequently is sold at relatively low rates. The stations endeavour to keep their customers advised as much in advance as possible of interruptions or reductions, which are due to variations in water supply and in the demands of customers for primary power.

Primary power, also known in the industry as firm power, is power delivered as and when demanded by the customer. Stations must be ready to deliver power to primary power customers up to the amount contracted for, whenever the customer requires it, and consequently must have sufficient capacity to



take care of all such demands. In practice, all customers on a system do not require their maximum deliveries at the same time and generally there is a considerable difference hourly and daily in the rate at which the power plant must operate to produce the power as required. Most of the secondary power is sold to pulp and paper mills for the production of low pressure steam where short interruptions of the electric energy for the boilers can be tolerated without much inconvenience.

According to monthly reports, the consumption of primary power continued to decline up to and including August, 1946, but from then on increases were recorded. Deliveries of secondary power were considerably greater in 1946 than in 1945 but began to register declines in 1947 which have been continued to date. The cumulative total for the first eight months of 1948 was 1,809,996,000 kilowatt hours of secondary consumption against 4,318,656,000 in the same months of 1947 and 5,558,354,000 in a similar period of 1946. During 1946 the pulp and paper industry again became the largest user of electrical energy, accounting for 26.3 p.c. of the total production. The aluminium industry, which is included in the metal, smelting and refining class, was also a major consumer; approximately ten kilowatt hours of energy is required to produce one pound of aluminium.

The production of electric energy for secondary use each month is shown below:

SECONDARY POWER FOR USE IN CANADA  
(Thousands of Kilowatt Hours)

Month	1 9 3 9	1 9 4 4	1 9 4 5	1 9 4 6
January	607,070	132,138	545,019	680,016
February	605,257	146,975	506,380	645,940
March	619,756	167,028	618,420	728,074
April	527,079	162,288	674,256	735,281
May	578,058	319,574	623,467	758,487
June	526,652	263,938	560,819	679,995
July	488,165	126,336	491,774	669,444
August	505,652	208,721	481,841	661,116
September	590,900	201,485	450,404	589,653
October	684,433	267,605	545,700	641,481
November	685,441	347,940	574,349	649,611
December	615,246	398,093	573,415	628,389
TOTAL	7,033,709	2,743,121	6,645,824	8,067,487

For the following table data for the 7 groups were taken from the industrial census reports of the industries and consumption for other industries was computed by deduction, and consequently is only approximately correct.

CONSUMPTION OF ELECTRIC ENERGY, 1946  
(Thousands of Kilowatt Hours)

Industries	Central Electric Station Power Purchased				Power Generated by the Industries for own use
	Power and Light	Other Purposes	Total Central Electric Stn. Power	P.C. of Total Production	
Pulp and Paper .....	6,233,218	4,964,528	11,197,746	26.82	2,163,387
Ferro-Alloys .....	15,687	524,708	540,395	1.29	-
Abrasives .....	21,463	719,203	740,666	1.77	-
Electro-Chemicals .....	305,856	1,247,469	1,553,325	3.72	92,385
Metal, Smelting & Refining	807,740	5,290,493	6,098,233	14.61	11,190
Steel Furnaces .....	48,934	241,758	290,692	.70	49,398
Other Manufacturing .....	4,375,380	454,439	4,829,819	11.57	397,902
Total Manufactures ..	11,808,278	13,442,598	25,250,876	60.49	2,714,262
Other Industries .....			9,027,958	21.63	
Domestic Service (Residential) .....			3,881,677	9.30	
Commercial Lighting .....			1,840,496	4.41	
Street Lighting .....			223,000	0.53	
Free Service .....			55,475	0.13	
Exports to U.S.A. (net) .....			2,481,631	5.95	
Losses .....			3,815,220	9.14	
TOTAL OUTPUT OF CENTRAL ELECTRIC STATIONS					
Plus Imports (9,527 M.kw.hrs.)			41,746,514	100.00	

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the calendar year ended December 31, 1946, the export duty amounted to \$626,342.63. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported.

Below is a table showing the quantities of power exported for the calendar year 1946. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS EXPORTED TO THE UNITED STATES  
(Calendar Years 1945 and 1946)

Company	Exported	Exported
	1 9 4 5	1 9 4 6
	Kw. Hrs.	Kw. Hrs.
Hydro Electric Power Commission of Ontario .....	394,245,000	394,200,000
" " " " " " (surplus)- Niagara	954,911,061	850,952,549
" " " " " " " - Cornwall	165,819,000	127,867,000
Quebec Hydro Commission .....	618,842,478	614,992,847
Canadian Niagara Power Company, Ltd. ....	322,722,441	324,484,986
" " " " " (surplus) .....	99,409,843	93,806,074
Ontario and Minnesota Power Company .....	38,365,000	32,073,000
Maine and New Brunswick Electric Power Company .....	40,384,249	33,876,359
British Columbia Electric Railway Company, Ltd. ....	273,050	323,260
Northport Power and Light Company .....	15,206	20,619
Southern Canada Power Company .....	2,462,695	2,703,079
Canadian Cottons, Ltd. ....	2,708,400	2,868,000
Northern British Columbia Power Company .....	12,170	33,120
Fraser Companies, Ltd. ....	4,574,000	1,288,000
Detroit and Windsor Subway Company .....	291,800	328,100
Manitoba Power Commission .....	1,398,840	1,813,740
<b>TOTAL .....</b>	<b>2,646,435,233</b>	<b>2,481,630,733</b>

Of the total output of 41,736,987,000 kilowatt hours, 40,692,395,000 kilowatt hours, or 97.5 per cent, was produced by water power, whereas only 943,788,000 hours were produced by plants using only thermal engines and 100,804,000 kilowatt hours were produced by thermal auxiliary equipment in hydraulic plants and in non-generating plants.



Total hydraulic installations in all industries in Canada at the close of 1946, including active and inactive plants, as compiled by the Dominion Water and Power Bureau was 10,312,123 horse power. The available and developed water power in each province is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 4 6	1 9 4 7
	H. P.	H. P.	H. P.	H. P.
Prince Edward Island ...	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	133,384	133,384
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	5,848,572	5,878,872
Ontario .....	5,407,200	7,261,400	2,679,740	2,749,740
Manitoba .....	3,309,000	5,344,500	446,825	458,825
Saskatchewan .....	542,000	1,082,000	90,835	90,835
Alberta .....	507,800	1,258,000	93,060	106,560
British Columbia .....	7,023,000	10,998,000	864,024	917,024
Yukon and Northwest Territories ..	382,500	813,500	19,719	19,719
CANADA .....	25,722,900	40,124,100	10,312,123	10,490,923

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 52,000,000 horse power.

TABLE 1 - (Page 14) - COMPARATIVE SUMMARY, 1937-1946

In the period from 1937 to 1946 revenues of central electric stations have risen from \$143,546,643 to \$226,096,273 or by 57.5 p.c., while electric energy generated advanced from 27,687,645,000 kilowatt hours to 41,736,987,000 or by 50.7 p.c. The number of domestic customers, including farm service, rose over 604,000 in the decade to 2,104,549 and average consumption increased considerably along with the installation of electrical appliances.

Revenues from domestic or residential use rose from \$55,735,696 in 1945 to \$62,820,120 in 1946 or by 12.7 p.c., from commercial lighting \$32,911,620 to \$37,204,822 and from street lighting from \$5,029,181 to \$5,261,115. Small power users paid \$11,322,392 in 1946 compared with \$10,947,854 one year earlier while large power customers, such as paper mills and smelters, contributed ~~\$119,361,915~~ <sup>109,487,824</sup> as against \$110,481,122, ~~up 8 p.c.~~ <sup>down 0.9</sup>

Reported expenses, which include only four items - wages, power purchased, fuel and taxes, increased from \$135,104,091 in 1945 to \$150,750,488. Wages rose from \$39,521,365 to \$46,422,998 with an increase of 3,294 employees, taxes were \$22,169,479 against \$19,125,746 in 1945, cost of purchased power (interchanged between stations) advanced from \$71,358,219 to \$76,572,805 while fuel costs were up nearly \$487,000 at \$5,585,206 for 1946.

Pole line mileage increased considerably during the year at 89,231 miles compared with 83,178 miles in 1945 and with wooden pole mileage advancing from 74,477 miles to 80,759. Customers numbered 2,476,830 in 1946, which was double the number twenty years previous and 143,600 above 1945. Domestic or residential service customers, including farms, represented 2,104,549 or 85 p.c. of the national total. The farm customers added during the year aggregated 18,194 with the total 148,272, an increase of 14 p.c. against an advance of 5.3 p.c. in other domestic service customers.

Total production of all stations amounted to 41,736,987,000 kilowatt hours, of which 2,481,631,000 or 5.9 p.c. was exported to the United States. Imports from Boulder Dam by British Columbia stations totalled 8,651,000 kilowatt hours during 1946 while total imports were 9,527,000 kilowatt hours. Commercial stations generated 26,997,716,000 kilowatt hours during the year or 64.7 p.c. of the total for Canada while municipal stations contributed 14,739,271,000 kilowatt hours or 35.3 p.c.

However, municipal stations purchased considerable of the output of commercial stations at wholesale and distributed it to their widespread customers. This is particularly true of Eastern Quebec where commercial stations deliver a large part of their production to the Ontario Hydro Commission's system. Revenues of municipal stations were \$117,427,501 in 1946 compared with \$108,668,772 for commercial stations and the municipal group had twice as many customers as the commercial.

The total capacity of primary equipment in main plants registered a small increase over 1945 rising from 9,666,947 to 9,825,459 horse power. Primary here signifies water wheels and turbines, steam and internal combustion engines used to operate generators which in turn are classed as secondary power equipment.

TABLE 2 - (Page 16) - DOMESTIC SERVICE, 1937-1946

This table illustrates the steady growth in the number of domestic customers, total consumption, revenue, average consumption per customer and in the annual average bill over the period from 1937 to 1946, for Canada and in each province. Contrasting with these advances in the industry is the noteworthy decrease in revenue per kilowatt hour - a unique exception in an era of rising prices. This is confirmed by the annual index numbers of cost of electricity for domestic service which dropped from 96.9 in 1937 on the 1935-39 base of 100 to 91.6 in 1946. Similarly, rates for like amounts of commercial and small power for a representative city registered decreases from 1937 to 1946 of about 8 p.c. despite increased taxes.

In all provinces the number of domestic customers, including farms, increased considerably during the period, the percentage gains ranging from 33 p.c. in Ontario to 62 p.c. in New Brunswick. The rate of consumption also rose steadily in each province with the largest relative advances in the Maritimes and Quebec. Revenues increased by 60 p.c. or \$23,567,000 to \$62,820,120 with every province registering improvement. The average annual consumption per customer varied widely between provinces, Manitoba leading with a 1946 average of 4,433 kilowatt hours due in part to water heaters and New Brunswick



recorded the smallest consumption at 761 kilowatt hours. Ontario averaged 2,587 kilowatt hours against 1,011 in Quebec and 1,300 in British Columbia.

In the face of rising consumption the annual average bills have shown relatively small changes over the past ten years. The 1946 average for Canada stood at \$29.85 compared with \$26.17 in 1937, an increase of only 14.1 p.c., whereas consumption jumped over 90 p.c. Bills ranged from \$22.71 in Quebec to \$45.36 in Manitoba with Ontario at \$30.01. Prince Edward Island, Saskatchewan and Alberta bills were partly affected by the higher costs of thermal generation, whereas the Manitoba average reflects the widespread use of flat rate water heaters. The bills exclude federal, provincial or municipal taxes on electricity purchased.

Domestic service is discussed further under Table 4 and elsewhere in this report on pages 12, 13, etc.

#### TABLE 3 - (Page 18) - POWER PLANTS

Generating stations are the individual power plants of the central electric organizations or stations. Each building housing power producing machinery is counted as a generating station. The commercial organizations are companies or individuals selling electric energy and the municipal group includes urban and rural municipalities, provincial commissions, etc. selling power. Those generating power may operate from one to several power plants each, sometimes sited at different falls or rapids on the same river as the Gatineau, Ottawa, etc. The largest system is the Ontario Hydro-Electric Power Commission which operated 52 hydraulic plants and owned one steam auxiliary plants in 1946. The auxiliary or stand-by plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations.

Of the 600 plants operated during 1946, 305 were hydraulic, principally in Ontario, Quebec and British Columbia, while 295 were thermal situated mainly in Saskatchewan and Alberta. However, the hydraulic stations generated nearly 98 p.c. of the power produced in Canada during the year.

#### TABLE 4 - (Pages 20-21) - REVENUES

Central electric stations report a division of customers, consumption and revenue according to the following headings: (1) farm service, (2) domestic service, which includes lighting and all other residential uses, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) beginning in 1946, power, municipal, mainly used in water pumping stations, (7) sales to distributing companies, and (8) street lighting; also, the quantity of electricity supplied free to public buildings, company towns, etc.

The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province, the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick and Alberta, which purchased power from other provinces, were lower than they should have been.

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services for each station, but even here the use of electric stoves, flat rate water heaters, the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills, aluminium plants, wholesale to Ontario, etc., showed a smaller proportion of revenue from domestic service than any other stations, although greater in dollars than those in other provinces except Ontario. In computing the average total revenue per kilowatt hour all line losses were included, but for domestic service and farm services, for commercial light, etc., line losses were not included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities when the consumption increases the average cost per kilowatt hour to the consumer decreases. Also, where flat rates apply to water heaters the average cost per kilowatt hour for all domestic services is reduced and as the number of flat rate heaters is increased the average for the municipality or province is decreased if not offset by increases in rates elsewhere. The



average revenue of 1.52 cents per kilowatt hour for all domestic service, or 1.58 cents with farm services included, compares with an average of 3.32 cents in the United States, or double the Canadian figure. Over 95 p.c. of U.S. generation is of steam compared with about 2 p.c. in Canada. The average revenues per horse power and per kilowatt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in table 12 were increased one horse power for each 4,576 kilowatt hours imported from Quebec stations and one kilowatt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro-Electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per week for each horse power purchased. It is quite probable this output is a little too high for all the power imported from Quebec, and consequently the figures are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

The Federal sales tax on domestic service bills has been treated by practically all central electric stations as a tax on the consumer and was not included in either revenues or expenses. The Act placed the tax on the producer or importer, but a subsequent Order in Council allowed the producer or importer to increase the charge to the consumer by the amount of the tax irrespective of any agreements, contracts, etc. Only a few stations absorbed this tax, most of them passed it on to the consumer. Also provincial and municipal taxes on domestic bills, where imposed, have not been included as either revenue or expenses. The 8 p.c. Federal tax was removed November 17, 1947. Quebec (2 p.c.) and Saskatchewan impose a provincial tax in addition to a few municipalities levying a municipal tax on domestic consumers.

TABLE 5 - (Pages 22-23) - Expenses

This table includes only the four expense items, (1) salaries and wages, (2) fuel, (3) taxes and (4) cost of purchased power. The last is an intra-industry expense and might be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. The cost of power also includes the cost to municipalities receiving their supply from provincial commissions as well as the interchange of power between generating stations and also between generating and non-generating. As explained above, the sales taxes on domestic bills have not been included in the taxes given in this table.

In supplement Table 5, the details of taxes reported by commercial and municipal stations are presented below. Only in the few cases where the station absorbed the sales taxes are such taxes included. Motor vehicle taxes are excluded. The Federal unemployment insurance tax did not apply generally to utility employees until September 1, 1948, and apparently some stations still did not include the employer payments as a Dominion tax in 1946. Similarly all stations did not include under taxes, the federal and provincial taxes on gasoline used by their vehicles, etc. It is common practice to treat sales tax as part of the cost of the consumer. The Dominion tax included income and excess profits tax, tax on exports of electricity, and the two mentioned above. The greater part of the municipal tax paid by municipal stations, was tax payments received by the Ontario Hydro-Electric Commission on plants acquired from commercial stations, and in Quebec export taxes and other taxes paid by the Quebec Hydro-Electric Commission principally to the City of Montreal. In addition, the Quebec Commission contributed \$2,800,000 to the provincial Education Fund, which item was not reported as a tax. Total taxes reported by the industry during 1946, including contribution of Quebec Hydro, were nearly \$25 millions.

REPORTED TAXES, 1946

Province	Commercial Stations				Municipal Stations			
	Municipal	Provincial	Dominion	Total	Municipal	Provincial	Dominion	Total
	\$	\$	\$	\$	\$	\$	\$	\$
P. E. Island .....	20,301	1,294	53,904	75,499	-	-	-	-
Nova Scotia .....	277,781	10,336	613,735	901,852	54,273	1,972	9,499	65,744
New Brunswick .....	64,256	15,828	131,360	211,444	159	280	-	439
Quebec .....	2,285,336	1,356,774	6,854,130	10,496,240	756,064	x 660,980	188,203	1,605,247
Ontario .....	434,560	4,257	1,569,486	2,008,303	462,593	46,547	456,123	965,263
Manitoba .....	147,416	4,084	7,581	159,061	112,642	-	4	112,646
Saskatchewan .....	110,713	188	280,351	391,252	68,830	78	229	69,137
Alberta .....	50,091	3,264	703,404	756,759	216,918	-	100,122	317,040
British Columbia ...)	376,206	217,459	3,415,339	4,009,004	24,712	-	-	24,712
Island of N.W.T. ....)								
Total .....	3,764,354	1,613,194	13,631,703	19,009,251	1,696,191	709,857	754,180	3,160,228
Total-Commercial Stns.	3,764,354	1,613,194	13,631,703	19,009,251				
* Municipal *	1,696,191	x 709,857	754,180	3,160,228				
Total .....	5,460,545	2,323,051	14,385,883	22,169,479				

x - Does not include \$2,800,000 contribution to Education Fund by Quebec Hydro.

TABLE 6 (Pages 24-25) - EMPLOYEES

There was an increase of 3,294 employees during the year with all provinces reporting heavier employment. The total at 24,577 included 10,249 in commercial and 14,328 employees in municipal stations. Some 18,164 were engaged in generating stations and 6,413 in non-generating or distributive organizations. Over 80 p.c. of employees worked 44 hours or more per week with the greatest percentage at 48 hours.

On a provincial basis, 40.6 p.c. were employed in Ontario, 26.9 p.c. of the national total in Quebec, 8.6 p.c. in British Columbia, 14.6 p.c. on the Prairies and 9.3 p.c. in the Maritimes. Some 7,851 employees were on salaries while 16,726 were on wages. Among the generating stations, hydraulic operations required 15,643 employees, while fuel stations producing but 2.3 p.c. of the electric energy generated during 1946 employed 2,521 employees.

TABLE 7 (Pages 26-27) - CUSTOMERS

As outlined under Table 4, stations report a segregation of customers into seven classes, but in the past many stations included farm customers with domestic customers, and in the Bureau's reports all customers in these two classes were combined under "Domestic Customers". Below is a table giving the farm customers as reported, together with the respective consumptions and revenues received from them. Such revenues do not include taxes paid by the consumer as previously explained. Due to the increasing activity in rural electrification, it is probable that current data are more comprehensive than previously reported. Installations were extended to some 18,200 new farm customers during 1946, and the total at 148,272 was up 14 p.c. over 1945 compared with an increase of 5.3 p.c. or 98,995 in residential urban service. The two services are combined under "Domestic" in tables 2, 4, 7 and 12 as in previous years for comparative purposes. The relatively large number of farm customers and low average revenue per kilowatt hour in Ontario reflects the assistance given by the Ontario Government to this class of service. Farm customers in Ontario include only farms, whereas in years previous to 1945 rural customers in hamlets were also included. With over 725,000 rural farms in Canada, the total of 148,272 farm customers indicates that about a fifth enjoy the benefits of electrification.

FARM SERVICE, 1946

Province	Number of Customers	Kilowatt Hours	Revenue	Kw. Hrs. per Customer	Average <sup>(1)</sup> Annual Bill	Revenue <sup>(1)</sup> per Kw. Hr.	P.C. of Dominion Farm Service Consumption
			\$		\$	\$	%
Prince Edward Island	2,341	1,488,552	95,543	636	40.81	6.4	0.64
Nova Scotia	9,767	5,842,970	271,449	598	27.79	4.6	2.53
New Brunswick	8,858	2,709,262	207,927	306	23.47	7.7	1.17
Quebec	44,680	28,678,547	1,046,962	642	23.43	3.7	12.41
Ontario	75,011	180,883,529	3,150,560	2,411	42.00	1.7	78.51
Manitoba	2,311	2,488,630	105,466	1,077	45.64	4.2	1.08
Saskatchewan	486	456,671	38,743	940	79.72	8.5	0.20
Alberta	1,391	2,437,475	142,552	1,752	102.48	5.8	1.06
British Columbia	3,427	6,012,294	162,399	1,754	47.39	2.7	2.60
Canada	148,272	230,997,930	5,221,601	1,558	35.22	2.3	100.00

(1) Federal, Provincial and Municipal taxes on the electricity purchased are not included.



TABLE 8 - POLE LINE MILEAGE - (Pages 28-29)

Transmission and distribution lines are combined in this table and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high-voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileage.

TABLES 9 - 10 - 11 - EQUIPMENT - (Pages 28-33)

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 39,769,000 kilowatt hours being generated during the year by this auxiliary equipment. Table 13 has been omitted from the current report as little change occurred from 1945.

TABLE 12 - ELECTRIC ENERGY GENERATED (Pages 34-35)

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations. The ratios indicate the relative position of the supply to the demand on a kilowatt



hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. This changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly, especially up to 1937. After the outbreak of the war the supply of surplus power was greatly reduced and with war industries working twenty four hours per day, the supply of off-peak power was also considerably curtailed so that sales of secondary power showed a steady decrease up to the middle of 1943. However, they then began to increase and continued the upward trend throughout 1944, 1945 and 1946. Subsequent to August, 1946, declining amounts of secondary power were available and production, as reported monthly, dropped from 9,141,804,000 in 1946 to 6,233,503,000 kilowatt hours in 1947.

TABLE 13 - FUEL (Pages 36-37)

Fuel used was principally local coal, oil and manufactured gas with stations in Nova Scotia and Saskatchewan the largest users. The value of Canadian bituminous coal was 51 p.c. of the total; lignite coal accounted for 9 per cent, fuel oil and diesel oil for 32 p.c. and gasoline, gas, wood, etc., accounted for the remainder.

DOMESTIC SERVICE

In the following table data on domestic customers are brought together and analysed. As might be expected the provinces with relatively high percentages of rural populations, Prince Edward Island, Saskatchewan and Alberta, show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of the use. Manitoba's low unit cost and high average consumption are influenced by flat rate water heaters and extensive use for cooking in Winnipeg; these induce high consumption per customer. There was also a large number of flat rate water heaters in Ontario. Also, where hydro-electric power is plentiful the rates are generally low and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and heavy consumption by pulp and paper, aluminium and other electric metallurgical plants.

Domestic customers in Ontario used 58.4 per cent of the total power used by all domestic customers in Canada but the population of this province was under a third of the total for the Dominion.

The average bills do not include federal, provincial and municipal sales taxes paid by the consumers.

(1) DOMESTIC SERVICE

1 9 4 6

Province	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	P.C. of total Provincial Consumption	P.C. of Dominion Dom. Service Consumption
			\$	¢	Kw.hrs.	Kw.hrs.		
P. E. Island	6,882	7.32	39.83	4.56	874	64	36.0	0.2
Nova Scotia	89,484	14.62	29.73	3.22	924	135	14.0	2.1
New Brunswick	67,479	14.06	30.77	4.04	761	107	9.1	1.3
Quebec	590,125	16.26	22.71	2.25	1,011	164	3.2	15.4
Ontario	876,761	21.38	30.01	1.16	2,587	553	16.8	58.4
Manitoba	103,204	14.20	45.36	1.02	4,433	629	19.2	11.8
Saskatchewan	67,336	8.08	43.66	4.29	1,018	82	25.3	1.8
Alberta	92,461	11.51	34.25	4.18	819	94	12.6	1.9
B.C. & Yukon & N.W.T.	210,817	20.53	34.66	2.67	1,300	267	9.4	7.1
Canada	2,104,549	17.10	29.85	1.62	1,844	315	9.9	100.0

(1) Includes Farm Customers.

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TABLE 1 - COMPARATIVE SUMMARY, 1937-1946

PRINCIPAL DATA BY CLASS OF STATION	1946	1945	1944	1943	1942
<b>ELECTRIC POWER PLANTS</b>					
Total .....	600	600	626	622	616
Hydraulic .....	305	302	320	322	320
Fuel .....	295	298	306	300	296
Commercial .....	397	392	424	425	428
Municipal .....	203	208	202	197	188
<b>CAPITAL</b>					
Total .....	Data not collected in 1944, 1945 and 1946			1,778,224,640	1,747,891,798
Commercial .....				1,149,225,710	1,127,978,332
Municipal .....				628,998,930	619,913,466
Generating .....				1,584,624,501	1,559,495,388
Non-generating .....				193,600,139	188,396,410
<b>REVENUE (1)</b>					
Total .....	226,096,273	215,105,473	215,246,591	204,801,508	203,835,565
Commercial .....	108,668,772	101,672,511	104,986,232	124,730,993	124,611,713
Municipal .....	117,427,501	113,432,962	110,260,159	80,070,515	79,223,652
Generating .....	192,214,412	183,227,685	185,574,224	175,217,757	173,916,640
Non-generating .....	33,881,861	31,877,788	29,672,167	29,583,751	29,918,725
<b>EXPENSES (2)</b>					
Total .....	150,750,488	135,104,091	131,289,947	135,555,469	132,581,418
Commercial .....	66,789,794	60,893,580	60,470,374	72,579,621	71,133,582
Municipal .....	83,960,694	74,210,511	70,819,573	62,975,848	61,448,056
Generating .....	95,125,303	83,336,610	79,913,496	81,500,674	80,171,586
Non-generating .....	55,625,185	51,767,481	51,376,451	54,054,795	52,409,832
<b>POLE LINE MILEAGE</b>					
Total .....	89,231	83,178	80,073	78,063	77,909
Commercial .....	33,184	31,117	30,877	32,085	31,847
Municipal .....	56,047	52,061	49,196	45,978	46,062
Generating .....	71,936	66,694	63,665	61,710	61,927
Non-generating .....	17,295	16,484	16,408	16,353	15,982
<b>CUSTOMERS</b>					
Total .....	2,476,830	2,333,230	2,238,023	(4) 2,164,861	2,125,504
Domestic service (3) .....	2,104,549	1,987,360	1,906,452	(4) 1,848,080	1,805,708
Commercial light .....	306,592	285,402	273,451	259,640	264,706
Power (small) .....	50,254	46,955	45,284	44,948	44,813
Power (large) .....	11,846	10,955	10,376	9,772	9,673
Power (municipal) .....	887	-	-	-	-
Street lighting .....	2,702	2,558	2,460	2,421	2,404
Commercial stations .....	826,091	766,554	753,239	(4) 1,005,516	985,059
Municipal stations .....	1,650,739	1,566,676	1,484,784	1,159,545	1,140,245
Generating stations .....	1,354,763	1,256,095	1,195,778	1,129,272	1,105,539
Non-generating stations .....	1,122,067	1,077,135	1,042,245	(4) 1,035,589	1,021,765
<b>ELECTRIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	41,736,987	40,130,054	40,598,779	40,479,593	37,355,179
Commercial .....	26,997,716	25,530,857	25,688,580	31,082,239	28,177,387
Municipal .....	14,739,271	14,599,197	14,910,199	9,397,354	9,177,792
Exports to the United States .... (thousands)... Kw.h.	2,481,631	2,646,435	2,585,311	2,545,038	2,455,739
Imports from the United States .. (thousands)... Kw.h.	9,527	15,916	14,097	599	594
<b>EQUIPMENT IN GENERATING STATIONS (Main Plant Only)</b>					
Total Primary Power .....	9,825,459	9,666,947	9,713,791	9,602,794	8,613,696
Total in commercial stations .....	6,501,996	6,294,121	6,373,523	7,239,936	6,269,386
Total in municipal stations .....	3,323,463	3,372,826	3,340,268	2,362,858	2,344,310
Total Secondary Power .....	8,162,896	8,035,767	8,073,864	7,982,027	7,256,927
Total in commercial stations .....	5,233,480	5,227,037	5,290,874	6,074,895	5,366,769
Total in municipal stations .....	2,929,416	2,808,730	2,782,990	1,907,132	1,890,158
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	176,253	173,312	185,117	194,822	194,966
Secondary power .....	149,462	146,556	157,866	166,010	166,256

- (1) Cost of power interchanged between stations excluded from revenue of purchasing stations (see page 7).  
 (2) Includes wages, cost of power, fuel and taxes, but not other expenses.  
 (3) Farm service is included with domestic service.  
 (4) Revised in 1944 report.

TABLEAU 1 - SOMMAIRE COMPARATIF, 1937-1946

1941	1940	1939	1938	1937	DONNEES PRINCIPALES PAR CLASSES D'USINES
607 313 294 424 183	602 313 289 421 181	611 313 298 427 184	589 313 276 406 183	568 314 254 389 179	<u>USINES ELECTRIQUES</u> Total Hydrauliques A combustible Commerciales Municipales
1,641,460,451 1,054,714,025 586,748,426 1,459,900,540 181,559,911	1,615,458,140 1,049,506,904 565,931,236 1,440,026,870 175,411,270	1,564,603,211 1,014,704,665 549,898,546 1,396,838,921 167,764,290	1,545,416,592 1,002,891,485 542,525,107 1,377,120,289 168,296,303	1,497,330,231 979,950,159 517,380,072 1,337,399,695 159,930,536	<u>CAPITAL</u> Total Commerciales Municipales Génératrices Non-génératrices
186,018,040 111,851,778 74,166,262 157,283,409 28,734,631	166,228,773 99,887,052 66,541,721 139,673,392 26,555,381	151,880,969 92,555,049 59,545,920 127,483,222 24,397,747	144,331,627 87,697,078 56,634,549 120,784,939 25,546,688	145,546,643 85,283,008 58,263,635 120,465,135 23,081,508	<u>RECETTES (1)</u> Total Commerciales Municipales Génératrices Non-génératrices
117,758,977 60,561,621 57,197,556 69,148,513 48,610,464	105,044,158 51,990,160 53,053,998 60,752,761 44,291,397	91,982,372 42,471,534 49,510,838 51,570,137 40,412,235	87,364,340 41,067,998 46,296,342 48,946,422 38,417,918	84,185,082 41,132,931 43,052,151 46,114,640 38,070,442	<u>DEPENSES (2)</u> Total Commerciales Municipales Génératrices Non-génératrices
77,253 31,442 45,811 61,495 15,758	75,050 30,933 44,117 59,676 15,374	72,132 30,288 41,844 57,084 15,048	66,977 29,355 37,622 52,373 14,604	63,035 28,332 34,703 48,866 14,169	<u>LIGNES SUR POTEAUX</u> Total Commerciales Municipales Génératrices Non-génératrices
2,081,270 1,755,917 268,977 44,071 9,934 - 2,371	2,006,508 1,686,388 265,175 43,138 9,490 - 2,317	1,941,663 1,623,672 262,590 43,896 9,257 - 2,238	1,873,621 1,559,394 259,693 41,999 10,152 - 2,183	1,805,995 1,500,128 252,305 41,415 10,066 - 2,081	<u>ABONNES</u> Total Service domestique (3) Eclairage commercial Force motrice (petite) Force motrice (grosse) Energie (municipale) Eclairage des rues
954,906 1,126,564 1,079,233 1,002,037	926,093 1,086,415 1,032,433 982,075	889,418 1,052,245 998,067 943,596	859,506 1,014,115 954,797 918,824	833,711 972,284 916,648 889,347	Usines commerciales Usines municipales Usines génératrices Usines non-génératrices
33,317,663 24,793,715 8,523,948	30,109,283 22,287,270 7,822,013	28,338,030 21,290,930 7,047,100	26,154,160 19,488,325 6,665,837	27,687,645 20,315,627 7,372,018	<u>ENERGIE ELECTRIQUE</u> Total Kw. heures générés (milliers) Commerciale Municipale
2,354,229 670	2,132,129 655	1,908,756 666	1,822,103 624	1,843,227 1,317	Exportations d'électricité aux Etats-Unis ..... (milliers) Kw.h. Importations d'électricité des Etats-Unis ..... (milliers) Kw.h.
8,157,585 5,917,160 2,240,425 6,851,785 5,054,727 1,797,058	7,935,867 5,708,664 2,227,203 6,691,211 4,906,268 1,784,943	7,607,122 5,385,632 2,221,490 6,435,416 4,654,745 1,780,671	7,476,976 5,300,183 2,176,793 6,327,868 4,586,273 1,741,595	7,342,085 5,203,529 2,138,556 6,206,465 4,496,443 1,710,022	<u>MACHINERIE DANS LES USINES GENERATRICES</u> (Usines principales seulement) Total force motrice primaire ..... H.P. Total dans les usines commerciales H.P. Total dans les usines municipales H.P. Total force motrice secondaire ... Kv.A. Total dans les usines commerciales Kv.A. Total dans les usines municipales Kv.A.
194,651 166,021	194,914 166,367	194,139 165,785	195,628 166,660	197,350 167,839	<u>OUTILLAGE D'USINES AUXILIAIRES</u> Force motrice primaire ..... H.P. Force motrice secondaire ..... Kv.A.

(1) Le coût de l'énergie échangée entre stations est exclu du revenu des stations en faisant l'achat (Voir p. 7).

(2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

(3) L'éclairage des fermes est inclus dans l'éclairage domestique.

(4) Révisé en 1944.



TABLE 2 - DOMESTIC SERVICE, 1937 - 1946

	Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
	Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
			(000)	\$	kw. hrs.	\$	\$
CANADA .....	1937	1,500,128	2,007,433	59,253,133	1,538	26.17	1.98
	1938	1,559,394	2,172,500	41,302,107	1,393	26.49	1.90
	1939	1,623,672	2,310,891	43,793,482	1,423	26.97	1.90
	1940	1,686,388	2,436,572	46,444,357	1,445	27.54	1.91
	1941	1,755,917	2,582,405	48,683,162	1,471	27.75	1.89
	1942	1,803,708	2,716,895	50,706,757	1,506	28.11	1.87
	1943	1,852,367	2,843,612	51,307,781	1,535	27.70	1.80
	1944	1,906,452	3,046,980	53,511,353	1,598	27.96	1.75
	1945	1,987,360	3,365,497	55,755,696	1,693	28.05	1.66
	1946	2,104,549	3,881,677	62,820,120	1,844	29.85	1.62
Change (Changement) 1937- 1946							
Amount (Volume)		604,421	1,874,244	25,566,987	506	5.68	- 0.54
Per cent (p.c.)		40.29	93.37	60.04	37.82	14.06	-17.35
PRINCE EDWARD ISLAND .....	1937	4,545	2,232	152,660	491	33.59	6.84
	1938	4,799	2,578	150,994	537	31.46	5.85
	1939	5,067	2,908	163,226	574	32.21	5.61
	1940	5,227	3,076	172,643	588	33.03	5.61
	1941	5,531	3,183	183,090	630	33.10	5.26
	1942	5,696	3,580	196,446	659	35.04	5.49
	1943	5,715	3,695	217,914	682	38.13	5.59
	1944	6,103	4,579	230,596	750	37.78	5.04
	1945	6,367	5,217	238,538	817	37.35	4.57
	1946	6,892	5,937	274,082	874	39.83	4.58
Change (Changement) 1937 - 1946							
Amount (Volume)		2,337	3,785	121,422	383	6.24	- 2.28
Per cent (p.c.)		51.42	189.58	79.54	78.00	18.57	-33.33
NOVA SCOTIA .....	1937	56,165	31,692	1,535,298	545	26.40	4.84
	1938	58,556	33,307	1,595,086	603	27.24	4.52
	1939	62,034	39,084	1,709,507	630	27.56	4.37
	1940	65,796	43,277	1,877,812	658	28.54	4.34
	1941	69,397	46,357	2,065,057	691	29.50	4.27
	1942	72,592	50,877	2,166,648	715	29.85	4.18
	1943	75,957	57,324	2,156,852	755	28.40	3.76
	1944	79,904	65,516	2,439,703	795	30.53	3.84
	1945	84,011	70,099	2,286,358	834	27.21	3.26
	1946	89,484	82,696	2,660,287	924	29.73	3.22
Change (Changement) 1937 - 1946							
Amount (Volume)		31,319	51,904	1,124,989	579	3.33	- 1.62
Per cent (p.c.)		53.85	160.94	73.27	69.54	12.61	-33.47
NEW BRUNSWICK .....	1937	41,204	23,480	1,117,953	565	26.87	4.76
	1938	43,956	25,367	1,232,937	582	29.31	4.86
	1939	46,485	26,989	1,307,772	581	28.13	4.85
	1940	50,681	29,388	1,413,237	580	27.88	4.81
	1941	52,631	31,254	1,435,015	591	27.16	4.59
	1942	54,329	34,096	1,563,334	636	28.67	4.51
	1943	56,239	35,294	1,661,550	628	29.54	4.71
	1944	58,860	39,441	1,767,380	670	30.03	4.48
	1945	62,175	45,958	1,883,374	739	30.29	4.10
	1946	67,479	51,377	2,076,400	761	30.77	4.04
Change (Changement) 1937 - 1946							
Amount (Volume)		25,675	27,889	958,447	196	3.90	- 0.72
Per cent (p.c.)		62.19	118.74	85.73	34.69	14.51	-15.13
QUEBEC .....	1937	407,155	265,405	8,108,946	652	19.92	3.08
	1938	421,178	287,107	8,669,034	682	20.58	3.02
	1939	434,825	311,420	9,167,584	716	21.08	2.94
	1940	451,791	324,052	9,634,398	717	21.32	2.97
	1941	473,547	342,627	10,100,300	724	21.33	2.95
	1942	488,014	368,175	10,785,887	754	22.10	2.93
	1943	507,765	398,305	10,791,660	784	21.25	2.71
	1944	530,596	446,142	11,304,901	841	21.31	2.53
	1945	558,865	507,274	11,925,494	908	21.54	2.35
	1946	590,125	596,693	13,401,463	1,011	22.71	2.25
Change (Changement) 1937 - 1946							
Amount (Volume)		182,970	331,288	5,292,517	359	2.79	- 0.81
Per cent (p.c.)		44.94	124.82	65.27	55.06	14.01	-26.47



TABLEAU 2- SERVICE DOMESTIQUE, 1937 - 1946

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	¢
<b>ONTARIO</b> .....						
1937	660,262	1,174,558	17,718,464	1,779	26.84	1.51
1938	691,498	1,285,568	18,456,575	1,859	26.69	1.44
1939	719,871	1,374,525	19,657,658	1,909	27.31	1.43
1940	745,596	1,459,253	20,928,097	1,958	28.00	1.43
1941	772,155	1,546,189	21,980,331	2,002	28.47	1.42
1942	787,721	1,625,780	22,807,897	2,061	28.95	1.40
1943	801,430	1,682,562	23,000,644	2,099	28.70	1.37
1944	813,356	1,787,359	23,239,991	2,198	28.57	1.30
1945	839,968	1,965,043	23,699,446	2,337	28.21	1.21
1946	876,761	2,269,006	26,314,259	2,587	30.01	1.16
Change (Changement) Amount (Volume) Per cent (p.c.)	1937 - 1946 216,499 32.79	1,094,648 95.21	8,595,795 48.51	808 45.42	3.17 11.81	- 0.35 -25.18
<b>MANITOBA</b> .....						
1937	76,516	303,271	3,122,397	3,963	40.81	1.03
1938	77,762	311,793	3,223,605	4,010	41.45	1.03
1939	81,091	320,827	3,311,682	3,958	40.84	1.03
1940	83,404	330,269	3,423,312	3,960	41.04	1.04
1941	85,106	343,041	3,472,277	4,031	40.80	1.01
1942	87,615	355,928	3,570,492	4,062	40.75	1.00
1943	88,528	374,169	3,712,351	4,226	41.93	.99
1944	92,073	388,865	3,871,419	4,234	42.05	.99
1945	94,673	416,499	4,237,484	4,398	44.76	1.02
1946	103,204	457,464	4,680,853	4,433	45.36	1.02
Change (Changement) Amount (Volume) Per cent (p.c.)	1937 - 1946 26,688 34.88	154,193 50.84	1,558,456 49.91	470 11.86	4.55 11.15	- 0.01 - 0.10
<b>SASKATCHEWAN</b> .....						
1937	46,630	37,234	1,852,503	798	39.73	4.98
1938	48,060	39,077	1,903,731	813	39.61	4.87
1939	49,980	41,198	2,004,433	824	40.10	4.87
1940	51,425	43,406	2,093,205	844	40.70	4.82
1941	52,695	45,448	2,173,235	862	41.24	4.78
1942	54,132	46,858	2,173,896	866	40.16	4.64
1943	55,500	48,996	2,257,685	885	40.68	4.61
1944	58,089	52,724	2,397,702	908	41.28	4.55
1945	61,285	58,402	2,565,796	953	41.87	4.39
1946	67,336	68,530	2,940,165	1,018	43.66	4.29
Change (Changement) Amount (Volume) Per cent (p.c.)	1937 - 1946 20,706 44.40	31,296 84.05	1,087,662 58.71	220 27.57	3.93 9.89	- 0.69 -15.86
<b>ALBERTA</b> .....						
1937	61,121	35,339	1,865,520	576	30.52	5.28
1938	63,030	38,089	1,983,226	604	31.46	5.21
1939	66,287	42,210	2,145,095	618	31.42	5.08
1940	69,397	45,110	2,275,091	650	32.78	5.04
1941	72,422	47,572	2,365,189	657	33.05	5.03
1942	74,814	49,089	2,393,073	656	31.99	4.87
1943	77,810	52,100	2,514,031	670	32.31	4.85
1944	81,652	56,977	2,698,155	698	33.04	4.74
1945	87,005	63,982	2,932,410	735	33.70	4.59
1946	92,461	75,756	3,166,731	819	34.25	4.18
Change (Changement) Amount (Volume) Per cent (p.c.)	1937 - 1946 31,340 51.28	40,417 114.37	1,301,211 69.75	241 41.70	3.73 12.22	- 1.10 -20.65
<b>BRITISH COLUMBIA</b> .....						
1937	144,130	134,414	3,779,392	933	26.22	2.81
1938	150,965	147,613	4,066,919	978	27.07	2.77
1939	156,052	151,930	4,326,747	974	27.73	2.85
1940	163,277	156,781	4,626,562	972	28.54	2.91
1941	171,635	174,454	4,880,948	1,016	28.44	2.80
1942	178,685	132,914	5,049,084	1,024	28.26	2.76
1943	179,136	190,967	4,994,894	1,066	27.88	2.62
1944	186,019	206,377	5,361,506	1,109	28.82	2.60
1945	192,991	235,043	5,966,796	1,218	30.92	2.54
1946	210,817	274,138	7,305,880	1,300	34.66	2.67
Change (Changement) Amount (Volume) Per cent (p.c.)	1937 - 1946 66,687 46.27	139,724 103.95	3,526,488 93.51	367 39.34	8.44 32.19	- 0.14 - 4.98

TABLE 3 - ELECTRIC POWER PLANTS, 1946

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total number of generating stations</u> .....	600	9	45	15
Per cent of total for Canada .....	100.00	1.50	7.50	2.50
<u>COMMERCIAL</u> .....	397	8	18	8
Hydraulic .....	183	4	11	5
Fuel .....	214	4	7	3
<u>MUNICIPAL</u> .....	203	1	27	7
Hydraulic .....	122	-	21	3
Fuel .....	81	1	6	4
With water wheels and turbines .....	304	4	32	8
With steam engines only .....	15	-	-	1
With steam turbines only .....	23	1	7	1
With gas or oil engines only .....	254	4	5	4
With both steam engines and turbines .....	4	-	1	1
With both steam and gas or oil engines .....	- -	-	-	-
With alternating current dynamos only .....	372	8	45	14
With direct current dynamos only .....	119	-	-	1
With both alternating and direct current dynamos ..	8	-	-	-
<u>COMMERCIAL ORGANIZATIONS</u> .....	x 361	7	16	15
Number generating power .....	265	5	10	7
Number buying power for redistribution .....	108	2	6	8
<u>MUNICIPALITIES</u> .....	x 468	1	23	9
Number generating power .....	84	1	8	3
Number buying power for redistribution .....	389	-	15	6
<u>AUXILIARY PLANTS</u> .....	54	1	4	3
To hydraulic stations .....	42	1	1	-
To non-generating stations .....	12	-	3	3

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization..

TABLEAU 3 - USINES GENERATRICES, 1946

Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia and Yukon	
98	118	17	143	77	78	<u>Nombre d'usines génératrices</u>
16.33	19.67	2.83	23.83	12.84	13.00	Pourcentage du total pour le Canada
74	48	11	107	69	54	<u>COMMERCIALES</u>
72	45	4	-	4	38	Hydrauliques
2	3	7	107	65	16	A combustible
24	70	6	36	8	24	<u>MUNICIPALES</u>
21	63	2	-	-	12	Hydrauliques
3	7	4	36	8	12	A combustible
93	107	6	-	4	50	Avec roues et turbines hydrauliques
1	3	1	-	5	4	Avec machines à vapeur seulement
1	-	-	5	5	3	Avec turbines à vapeur seulement
3	8	10	137	62	21	Avec moteurs à gaz ou à pétrole seulement
-	-	-	1	1	-	Avec machines et turbines à vapeur à la fois
-	-	-	-	-	-	Avec machines à vapeur à gaz et à pétrole
97	117	17	56	45	73	Avec dynamos à courant alternatif seulement
1	1	-	85	27	4	Avec dynamos à courant direct seulement
-	-	-	2	5	1	Avec dynamos à courant alternatif et direct
60	61	14	89	63	48	<u>USINES COMMERCIALES</u>
34	33	8	87	51	30	Nombre d'usines génératrices
26	28	6	2	12	18	Nombre d'usines achetant de l'électricité pour la revendre
34	332	7	32	15	20	<u>MUNICIPALITES</u>
15	13	3	24	8	9	Nombre d'usines génératrices
19	319	4	8	7	11	Nombre d'usines achetant de l'électricité pour la revendre
11	6	1	-	8	20	<u>USINES AUXILIAIRES</u>
10	5	1	-	8	16	Aux usines hydrauliques
1	1	-	-	-	4	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total



TABLE 4 - REVENUE, 1946 (1)

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	226,096,273	561,804	8,480,811	5,743,824	84,894,929
For domestic service .....	62,820,120	274,082	2,660,287	2,076,400	13,401,463
For commercial light .....	37,204,822	182,545	1,529,862	1,022,380	10,144,503
For power (small) .....	11,322,392	45,390	1,063,430	451,091	2,736,646
For power (large) .....	105,495,981	32,040	2,991,064	1,949,452	56,540,241
For power (municipal) .....	3,991,843	7,024	30,452	88,509	858,372
For street lighting .....	5,261,115	20,723	205,916	155,992	1,213,504
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	108,668,772	426,858	5,952,830	2,936,324	56,735,273
Non-generating .....	9,602,647	1,268	700,147	530,980	166,108
Generating .....	99,066,125	425,590	5,232,683	2,405,344	56,569,165
Hydraulic .....	89,548,003	19,240	1,213,855	1,694,981	56,525,754
Fuel .....	9,518,122	406,350	4,018,828	710,363	43,411
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	117,427,501	134,946	2,547,981	2,807,500	28,159,656
Non-generating .....	24,279,214	-	380,587	546,141	720,536
Generating .....	93,148,287	134,946	2,167,394	2,261,359	27,439,120
Hydraulic .....	82,371,987	-	1,763,515	103,680	27,517,968
Fuel .....	10,776,300	134,946	404,079	2,157,679	121,132
Revenue of non-generating stations .....	33,831,861	1,268	1,080,734	1,077,121	886,644
Revenue of generating stations .....	192,214,412	560,536	7,400,077	4,666,703	84,008,285
Revenue of hydraulic stations .....	171,919,990	19,240	2,977,170	1,798,661	83,843,742
Revenue of fuel stations .....	20,294,422	541,296	4,422,907	2,868,042	164,543
Average revenue per H.P. of primary power .....	23.01	60.83	41.48	38.26	15.73
Average revenue per H.P. in main and auxiliary plants .....	22.61	59.96	41.03	37.40	15.62
Average revenue per Kv.A. of dynamo capacity .....	27.70	80.89	49.76	44.64	18.58
Average revenue per Kv.A. in main and auxiliary plants .....	27.20	80.34	49.24	43.72	18.44
Average revenue per kilowatt hour consumed .....	0.54	3.36	1.44	0.96	0.36
Average revenue per domestic service customer .....	29.85	39.83	29.75	30.77	22.71
Average revenue per commercial light customer .....	121.35	124.52	119.79	128.17	125.24
Average revenue per small power customer .....	225.30	381.43	384.60	381.43	251.74
Average revenue per large power customer .....	10,076.13	5,340.00	14,662.08	13,352.41	29,341.07
Average revenue per kilowatt hour - domestic and farm service .....	1.62	4.56	3.22	4.04	2.25
Average revenue per kilowatt hour - commercial light .....	2.02	3.84	3.25	2.91	2.21

✓ Affected by power purchased from other province.

X Adjusted for power purchased from Quebec plants.

(1) Gross revenue less cost of power interchanged between stations.

TABLEAU 4 - RECETTES, 1946 (1)

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
87,370,113	12,066,618	7,705,605	9,864,138	25,274,365	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
26,314,259	4,680,853	2,940,165	3,166,731	7,305,880	Pour éclairage domestique
11,510,147	2,456,783	2,359,784	2,643,801	5,355,217	Pour éclairage commercial
3,500,536	532,799	1,004,413	1,025,460	962,427	Pour force motrice (petite)
41,582,996	5,972,505	840,745	2,512,212	8,940,660	Pour force motrice (grosse)
2,201,409	168,396	245,794	186,139	205,748	Pour pouvoir municipal
2,260,766	255,282	314,704	329,795	504,433	Pour éclairage des rues
11,518,518	6,206,154	2,590,650	4,879,660	20,473,803	<u>RECETTES DES USINES COMMERCIALES</u>
2,646,119	248,335	2,923	123,416	7,055,968	Non-génératrices
8,672,399	5,957,819	2,587,727	4,756,244	13,417,835	Génératrices
8,635,570	5,841,890	-	3,521,347	13,056,047	Hydrauliques
38,829	115,929	2,587,727	1,234,897	361,788	A combustible
76,051,595	5,860,464	5,114,955	4,984,478	2,800,562	<u>RECETTES DES USINES MUNICIPALES</u>
17,255,559	1,757,253	1,030,346	1,822,957	834,237	Non-génératrices
58,796,036	4,103,211	4,084,607	3,161,521	1,966,325	Génératrices
58,691,086	4,013,398	-	-	1,448,752	Hydrauliques
104,950	89,813	4,084,607	3,161,521	517,573	A combustible
19,901,678	2,005,588	1,033,271	1,946,373	7,890,205	Recettes des usines non-génératrices
67,468,435	10,061,030	6,672,334	7,917,765	15,384,160	Recettes des usines génératrices
67,324,656	9,855,288	-	3,521,347	14,504,799	Recettes des usines hydrauliques
143,779	205,742	6,672,334	4,396,418	879,361	Recettes des usines à combustible
X 25.70	22.56	45.24	49.77	32.00	Moyenne de recettes par H.P. de machinerie primaire
X 25.39	21.77	45.24	45.43	29.81	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
X 32.66	28.10	53.83	59.47	39.23	Moyenne de recettes par Kv.A. de capacité de dynamos
X 32.26	26.96	53.83	54.05	36.58	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
.55	.50	2.85	1.62	.80	Moyenne de recettes par Kw. heure ..... (cents)
30.01	45.56	43.66	34.25	34.66	Moyenne de recettes par abonnés d'éclairage domestique
103.28	128.84	123.95	124.97	163.91	Moyenne de recettes par abonnés d'éclairage commercial
234.68	131.59	311.83	153.03	182.17	Moyenne de recettes par abonnés pour petite force motrice
11,618.61	934.05	6,725.96	3,819.21	9,264.93	Moyenne de recettes par abonnés pour grosse force motrice
1.16	1.02	4.29	4.18	2.66	Moyenne de recettes par Kw. heure-service domestique et de ferme ..... (cents)
1.53	1.93	4.26	3.85	3.07	Moyenne de recettes par Kw.heure - service commercial.. (cents)

/ Affecté par énergie achetée d'une autre province.

X Adjusté pour achats de courant des usines du Québec.

(1) Revenu brut moins le coût de l'énergie échangée entre stations.



TABLE 5 - EXPENSES, 1946

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>TOTAL EXPENSES</u> .....	150,750,488	420,562	7,526,991	3,515,048	40,299,705
Per cent of total for Canada .....	100.00	0.28	4.99	2.33	26.73
Salaries and wages .....	46,422,998	125,174	1,971,341	1,162,028	12,647,124
Fuel .....	5,585,206	217,756	1,403,553	808,850	64,464
Taxes (x) .....	22,189,479	75,499	967,596	213,483	12,099,181
Cost of power .....	76,572,805	2,133	5,184,501	1,350,709	15,488,936
<u>TOTAL FOR COMMERCIAL STATIONS</u> .....	66,789,794	377,883	5,811,872	1,618,284	29,609,562
Salaries and wages .....	18,755,998	108,395	1,365,646	403,621	9,069,687
Fuel .....	3,304,399	191,856	1,273,169	261,934	11,541
Taxes .....	19,009,251	75,499	901,852	213,044	10,493,934
Cost of power .....	25,720,146	2,133	2,271,205	739,685	10,034,220
Non-generating stations .....	12,806,219	2,133	931,699	946,969	163,939
Generating stations .....	53,983,575	375,750	4,880,173	671,315	29,445,443
Hydraulic stations .....	46,587,749	11,140	614,043	227,571	29,420,649
Fuel stations .....	7,395,826	364,610	4,266,130	443,744	24,794
<u>TOTAL FOR MUNICIPAL STATIONS</u> .....	83,960,694	42,679	1,715,119	1,896,764	10,690,323
Salaries and wages .....	27,667,000	16,779	605,695	758,405	3,577,437
Fuel .....	2,280,807	25,900	130,384	546,886	52,923
Taxes .....	3,160,228	-	65,744	439	1,805,247
Cost of power .....	50,852,659	-	913,296	591,024	5,454,716
Non-generating stations .....	42,818,966	-	873,206	565,757	643,018
Generating stations .....	41,033,171	42,679	753,356	1,331,007	10,047,305
Hydraulic stations .....	36,326,159	-	330,398	74,246	9,985,843
Fuel stations .....	4,727,012	42,679	422,958	1,256,761	63,462
<u>TOTAL EXPENSES FOR NON-GENERATING STATIONS</u> .....	55,625,185	2,133	1,804,905	1,512,726	806,957
Salaries and wages .....	11,265,596	-	433,676	283,698	243,620
Fuel .....	8,358	-	56	-	-
Taxes .....	1,986,046	-	145,902	66,886	10,236
Cost of power .....	42,365,185	2,133	1,225,271	1,162,142	552,901
<u>TOTAL EXPENSES FOR GENERATING STATIONS</u> .....	95,125,303	418,429	5,722,086	2,002,322	39,492,748
Salaries and wages .....	35,157,402	125,174	1,537,665	878,328	12,403,304
Fuel .....	5,576,848	217,756	1,403,497	808,850	64,464
Taxes .....	20,183,433	75,499	821,694	146,597	12,088,945
Cost of power .....	34,207,620	-	1,959,230	168,567	14,936,035
Hydraulic stations .....	82,802,465	11,140	1,032,998	301,817	39,404,492
Fuel stations .....	12,322,838	407,289	4,689,088	1,700,505	88,256

(x) Sales tax not included (see page 8).

/ Includes only the four items listed.



TABLEAU 5 - DEPENSES, 1946

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
70,567,779	4,008,755	4,260,740	4,527,784	15,823,124	<u>TOTAL DES DEPENSES</u>
46.68	2.66	2.85	3.00	10.50	Pourcentage du total pour le Canada
20,573,814	2,774,614	1,411,338	1,488,537	4,469,030	Salaires et gages
75,976	65,405	1,567,781	811,335	770,106	Combustible
2,973,596	271,707	460,902	1,073,799	4,033,716	Taxes (x)
46,944,393	897,029	1,020,719	1,154,113	6,550,272	Achat d'énergie électrique
9,489,336	1,805,054	1,478,161	2,110,003	14,489,819	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,528,664	1,086,403	510,165	840,412	3,843,005	Salaires et gages
9,977	18,632	489,653	537,041	710,596	Combustible
2,008,333	159,061	391,765	756,759	4,009,004	Taxes
5,942,362	540,958	86,578	175,791	5,927,214	Achat d'énergie électrique
2,426,646	577,624	2,453	50,955	7,703,801	Usines non-génératrices
7,062,600	1,227,430	1,475,708	2,059,048	6,786,018	Usines génératrices
7,043,927	1,175,115	-	1,331,170	6,566,136	Usines hydrauliques
18,763	54,317	1,475,708	727,878	219,882	Usines à combustible
60,878,443	2,205,701	2,782,579	2,417,781	1,333,305	<u>TOTAL POUR LES USINES MUNICIPALES</u>
18,845,150	1,688,211	901,173	648,125	626,025	Salaires et gages
65,999	46,773	878,128	474,294	59,510	Combustible
965,263	112,646	69,137	317,040	24,712	Taxes
41,002,031	356,071	934,141	978,322	623,058	Achat d'énergie électrique
36,961,569	797,579	958,155	1,448,844	570,840	Usines non-génératrices
23,916,874	1,408,122	1,824,426	968,937	762,465	Usines génératrices
23,870,940	1,362,984	-	-	703,748	Usines hydrauliques
45,934	43,138	1,824,426	968,937	58,717	Usines à combustible
39,388,215	1,375,203	960,606	1,499,799	8,274,641	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
7,373,269	462,346	123,981	272,519	2,072,287	Salaires et gages
83	-	-	-	8,219	Combustible
316,582	15,828	68,830	214,025	1,147,757	Taxes
31,698,281	897,029	767,795	1,013,255	5,046,378	Achat d'énergie électrique
30,979,584	2,633,552	3,300,134	5,027,985	7,548,483	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
13,000,545	2,512,268	1,287,357	1,216,018	2,396,743	Salaires et gages
75,893	65,405	1,367,781	811,335	761,887	Combustible
2,657,014	255,879	392,072	859,774	2,885,959	Taxes
15,248,112	-	252,924	140,858	1,503,894	Achat d'énergie électrique
30,914,867	2,536,097	-	1,331,170	7,269,884	Usines hydrauliques
64,697	97,455	3,300,134	1,696,815	278,599	Usines à combustible

/ Ne comprend que les quatre items énumérés.

(x) Taxe des ventes non comprises (Voir p. 8).

TABLE 6 - EMPLOYEES, 1946

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	24,577	116	1,247	918	6,610
Per cent of total for Canada .....	100.00	0.47	5.07	3.74	26.90
Officers, clerks, other salaried employees, etc.	7,851	45	441	193	1,741
Employees on wages .....	16,726	71	806	725	4,869
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	10,249	97	787	300	5,067
Officers, clerks, other salaried employees, etc.	2,933	40	222	92	1,105
Employees on wages .....	7,316	57	565	208	3,962
Non-generating .....	1,294	-	172	120	52
Generating .....	8,955	97	615	180	5,015
Hydraulic .....	7,709	4	201	84	5,002
Fuel .....	1,246	93	414	96	13
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	14,328	19	460	618	1,543
Officers, clerks, other salaried employees, etc.	4,918	5	219	101	636
Employees on wages .....	9,410	14	241	517	907
Non-generating .....	5,119	-	115	76	119
Generating .....	9,209	19	346	542	1,424
Hydraulic .....	7,934	-	250	48	1,407
Fuel .....	1,275	19	95	494	17
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	6,413	-	287	196	171
Officers, clerks, other salaried employees, etc.	2,818	-	103	94	59
Employees on wages .....	3,595	-	184	102	112
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	18,164	116	960	722	6,439
Officers, clerks, other salaried employees, etc.	5,033	45	338	99	1,682
Employees on wages .....	13,131	71	622	623	4,757
Hydraulic .....	15,643	4	451	132	6,409
Fuel .....	2,521	112	509	590	30

TABLEAU 6 - EMPLOYÉS, 1946

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
9,974	1,868	755	973	2,116	<u>TOTAL DU PERSONNEL OCCUPE</u>
40.58	7.60	3.07	3.96	8.61	Pourcentage du total pour le Canada
5,476	567	217	318	853	Administrateurs, directeurs, commis et tous employés des bureaux
6,498	1,301	538	655	1,263	Ouvriers et journaliers
792	559	333	580	1,734	<u>PERSONNEL DES USINES COMMERCIALES</u>
208	231	80	183	772	Administrateurs, directeurs, commis et tous employés des bureaux
584	328	253	397	962	Ouvriers et journaliers
90	10	2	10	838	Non-génératrices
702	549	331	570	896	Génératrices
695	528	-	349	846	Hydrauliques
7	21	331	221	50	Combustible
9,182	1,309	422	393	382	<u>PERSONNEL DES USINES MUNICIPALES</u>
3,268	336	137	135	81	Administrateurs, directeurs, commis et tous employés des bureaux
5,914	973	285	258	301	Ouvriers et journaliers
3,930	589	64	157	69	Non-génératrices
5,252	720	358	236	313	Génératrices
5,239	700	-	-	290	Hydrauliques
13	20	358	236	23	Combustible
4,020	599	66	167	907	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,750	139	33	89	551	Administrateurs, directeurs, commis et tous employés des bureaux
2,270	460	33	78	356	Ouvriers et journaliers
5,954	1,269	689	806	1,209	<u>PERSONNEL DES USINES GENERATRICES</u>
1,728	428	184	229	302	Administrateurs, directeurs, commis et tous employés des bureaux
4,228	841	505	577	907	Ouvriers et journaliers
5,934	1,228	-	349	1,136	Hydrauliques
20	41	689	457	73	Combustible



TABLE 7 - NUMBER OF CUSTOMERS, 1948

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>NUMBER OF CUSTOMERS</u> .....	2,476,830	8,489	105,313	77,068	685,925
Per cent of total for Canada .....	100.00	0.34	4.25	3.11	27.69
Domestic service .....	2,104,549	6,882	89,484	67,479	590,125
Commercial light .....	306,592	1,466	12,769	7,977	80,998
Power (small) .....	50,254	119	2,765	1,390	11,810
Power (large) .....	11,846	6	204	146	1,927
Power (municipal) .....	887	1	6	9	143
Street lighting .....	2,702	15	85	67	922
<u>COMMERCIAL STATIONS</u> .....	826,091	6,962	69,806	30,162	329,959
Domestic service .....	693,277	5,617	59,137	25,186	284,288
Commercial light .....	108,202	1,250	8,608	4,117	57,624
Power (small) .....	17,751	76	1,930	741	5,862
Power (large) .....	5,104	5	85	91	1,216
Power (municipal) .....	308	-	2	6	104
Street lighting .....	1,469	14	44	21	865
Non-generating .....	230,088	129	26,229	18,197	4,137
Generating .....	596,005	6,833	43,577	11,965	325,822
Hydraulic .....	496,690	461	12,427	3,089	325,199
Fuel .....	99,315	6,372	31,150	8,876	623
<u>MUNICIPAL STATIONS</u> .....	1,650,739	1,527	35,507	46,906	355,966
Domestic service .....	1,411,272	1,265	30,347	42,293	305,857
Commercial light .....	198,390	216	4,161	3,860	43,374
Power (small) .....	32,523	43	835	649	5,948
Power (large) .....	6,742	1	119	55	711
Power (municipal) .....	579	1	4	5	39
Street lighting .....	1,233	1	41	46	57
Non-generating .....	891,981	-	17,926	14,569	24,098
Generating .....	758,758	1,527	17,581	32,337	331,868
Hydraulic .....	630,857	-	10,110	2,361	330,555
Fuel .....	127,901	1,527	7,471	29,976	1,313
<u>NON-GENERATING STATIONS</u> .....	1,122,067	129	44,155	32,766	28,255
Domestic service .....	955,461	89	38,133	28,516	25,004
Commercial light .....	139,050	39	4,935	3,804	2,608
Power (small) .....	22,582	-	968	580	507
Power (large) .....	3,772	-	80	42	58
Power (municipal) .....	446	-	4	5	13
Street lighting .....	756	1	35	19	45
<u>GENERATING STATIONS</u> .....	1,354,763	8,360	61,158	44,302	657,690
<u>Hydraulic stations</u> .....	1,127,547	461	22,537	5,450	655,754
Domestic service .....	969,573	362	19,367	4,578	563,655
Commercial light .....	128,860	96	2,575	724	77,959
Power (small) .....	19,964	2	482	111	11,275
Power (large) .....	7,531	-	85	28	1,063
Power (municipal) .....	253	-	1	4	129
Street lighting .....	1,366	1	29	5	873
<u>Fuel stations</u> .....	227,216	7,899	38,621	38,852	1,936
Domestic service .....	179,515	6,431	31,984	34,585	1,466
Commercial .....	38,682	1,331	5,259	3,449	431
Power (small) .....	7,708	117	1,515	699	28
Power (large) .....	543	6	41	76	6
Power (municipal) .....	188	1	1	-	1
Street lighting .....	580	13	21	43	4
Average number of domestic service customers per 100 of population .....	17.10	7.32	14.62	14.06	16.26

TABLEAU 7 - NOMBRE D'USAGERS, 1946

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
1,007,734	150,918	90,200	121,512	249,871	<u>NOMBRE D'USAGERS</u>
40.69	5.29	3.64	4.90	10.09	Pourcentage du total pour le Canada
876,761	103,204	67,336	92,461	210,817	Service domestique
111,449	19,068	19,038	21,156	32,671	Eclairage commercial
14,916	4,049	3,221	6,701	5,283	Force motrice (petite)
3,579	4,253	125	641	965	Force motrice (grosse)
410	81	103	119	15	Energie (municipale)
619	263	377	234	120	Eclairage des rues
67,813	40,988	29,562	43,484	207,355	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
58,346	31,791	22,344	30,785	175,783	Service domestique
8,158	6,518	5,819	9,398	26,710	Eclairage commercial
867	489	1,139	2,669	3,958	Force motrice (petite)
374	2,169	39	304	821	Force motrice (grosse)
8	1	74	109	4	Energie (municipale)
60	20	147	219	79	Eclairage des rues
15,461	9,306	144	2,751	153,732	Non-génératrices
52,352	31,682	29,418	40,733	53,623	Génératrices
51,880	30,069	-	23,088	50,477	Hydrauliques
472	1,613	29,418	17,645	3,146	Combustible
939,921	89,930	60,638	77,828	42,516	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
818,415	71,413	44,992	61,676	35,034	Service domestique
103,291	12,550	13,219	11,758	5,961	Eclairage commercial
14,049	3,560	2,082	4,032	1,525	Force motrice (petite)
3,205	2,084	86	337	144	Force motrice (grosse)
402	80	29	10	11	Energie (municipale)
559	243	230	15	41	Eclairage des rues
727,922	33,281	19,287	34,758	20,140	Non-génératrices
211,999	56,649	41,351	43,070	22,376	Génératrices
210,447	56,648	-	-	20,736	Hydrauliques
1,552	1	41,351	43,070	1,640	Combustible
743,583	42,587	19,431	37,509	173,872	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
637,876	33,377	14,475	30,686	147,505	Service domestique
89,358	7,338	3,983	4,620	22,365	Eclairage commercial
12,894	1,561	928	2,065	3,279	Force motrice (petite)
2,525	266	26	116	659	Force motrice (grosse)
400	2	7	7	8	Energie (municipale)
330	243	12	15	56	Eclairage des rues
264,351	88,331	70,769	83,803	75,999	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
262,327	86,717	-	23,088	71,213	<u>Usines hydrauliques</u>
237,207	68,730	-	16,192	59,482	Service domestique
21,831	11,332	-	4,866	9,477	Eclairage commercial
1,943	2,585	-	1,668	1,898	Force motrice (petite)
1,053	3,982	-	222	300	Force motrice (grosse)
9	78	-	27	5	Energie (municipale)
284	10	-	113	51	Eclairage des rues
2,024	1,614	70,769	60,715	4,786	<u>Usines à combustible</u>
1,678	1,097	52,861	45,583	3,830	Service domestique
260	398	15,055	11,670	829	Eclairage commercial
79	103	2,293	2,968	106	Force motrice (petite)
1	5	99	303	6	Force motrice (grosse)
1	1	96	85	2	Energie (municipale)
5	10	365	106	13	Eclairage des rues
21.38	14.20	8.08	11.51	20.53	Moyenne de consommateurs d'éclairage électrique par 100 habitants



TABLE 8 - POLE LINE MILEAGE, 1946

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	89,251	427	4,855	5,852	17,671
Per cent of total for Canada .....	100.00	0.48	5.19	4.50	19.80
Miles of steel towers .....	5,540	-	20	243	1,402
Miles of steel poles .....	354	-	2	-	260
Miles of wooden poles .....	80,759	424	4,599	5,588	15,256
Miles of concrete poles .....	522	-	-	1	-
Miles of underground and submarine cables .....	2,056	3	12	-	755
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	35,184	589	2,536	715	14,732
Non-generating .....	5,048	11	585	204	521
Generating .....	28,136	578	1,951	511	14,411
Hydraulic .....	24,185	26	1,174	504	14,598
Fuel .....	3,951	552	777	207	15
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	56,047	38	2,097	5,117	2,959
Non-generating .....	12,247	-	25	167	211
Generating .....	43,800	38	2,072	2,950	2,728
Hydraulic .....	36,225	-	1,552	40	2,700
Fuel .....	7,575	38	520	2,910	28
<u>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</u> .....	17,295	11	610	571	552
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	71,956	416	4,025	5,461	17,159
Hydraulic .....	60,410	26	2,726	544	17,098
Fuel .....	11,526	390	1,297	5,117	41

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1946

<u>TOTAL PRIMARY POWER</u> .....	H.P.	176,253	135	2,265	3,450	57,426
Per cent of total for Canada .....		100.00	0.08	1.28	1.96	21.25
Steam reciprocating engines .....	No.	21	1	5	5	-
Total capacity .....	H.P.	9,243	75	1,190	900	-
Steam turbines .....	No.	41	-	1	4	8
Total capacity .....	H.P.	156,624	-	670	2,550	56,224
Gas and oil engines .....	No.	47	1	4	-	6
Total capacity .....	H.P.	10,586	60	405	-	1,202
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	149,462	48	1,825	2,725	55,894
<u>COMMERCIAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	87,177	135	2,025	3,450	5,790
Steam reciprocating engines .....	No.	15	1	5	5	-
Total capacity .....	H.P.	5,118	75	1,190	900	-
Steam turbines .....	No.	27	-	1	4	5
Total capacity .....	H.P.	75,995	-	670	2,550	5,500
Gas and oil engines .....	No.	50	1	1	-	4
Total capacity .....	H.P.	6,064	60	165	-	290
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	70,745	48	1,658	2,725	5,125
<u>MUNICIPAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	89,076	-	240	-	55,656
Steam reciprocating engines .....	No.	6	-	-	-	-
Total capacity .....	H.P.	4,125	-	-	-	-
Steam turbines .....	No.	13	-	-	-	4
Total capacity .....	H.P.	80,629	-	-	-	52,724
Gas and oil engines .....	No.	17	-	5	-	2
Total capacity .....	H.P.	4,322	-	240	-	912
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	78,717	-	185	-	50,769



TABLEAU 8 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1946

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
59,765	5,759	4,920	5,450	6,794	<u>LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX</u>
44.57	6.43	5.51	6.11	7.61	Pourcentage du total pour tout le Canada
5,035	746	-	51	65	Milles de pylones d'acier
89	3	-	-	-	Milles de poteaux d'acier
35,087	4,954	4,695	5,356	6,620	Milles de poteaux de bois
520	1	-	-	-	Milles de poteaux de ciment
1,054	55	25	85	111	Milles de câbles souterrains et sour-marins
2,054	1,418	1,235	4,474	5,631	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
367	223	5	67	3,265	Non-génératrices
1,687	1,195	1,250	4,407	2,366	Génératrices
1,681	1,120	-	3,200	2,282	Hydrauliques
6	75	1,250	1,207	84	A combustible
57,711	4,521	3,685	978	1,163	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
7,415	3,404	207	480	538	Non-génératrices
50,296	917	3,478	496	825	Génératrices
50,262	892	-	-	779	Hydrauliques
34	25	3,478	496	46	A combustible
7,782	5,627	212	547	3,603	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON-GÉNÉRATRICES</u>
51,983	2,112	4,708	4,903	3,191	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GÉNÉRATRICES</u>
51,943	2,012	-	3,200	3,061	Hydrauliques
40	100	4,708	1,703	130	A combustible

TABLEAU 9 - OUTILLAGE AUXILIAIRE, 1946

41,060	19,490	-	18,963	53,464	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
25.50	11.06	-	10.76	50.53	Pourcentage du total pour tout le Canada .....
4	1	-	7	2	Machines à vapeur, à mouvement alternatif ..... Nomb.
1,600	1,750	-	2,753	975	Capacité totale ..... H.P.
4	6	-	4	14	Turbines à vapeur ..... Nomb.
58,000	17,740	-	15,000	46,440	Capacité totale ..... H.P.
4	-	-	7	25	Moteurs à gaz et à pétrole ..... Nomb.
1,460	-	-	1,210	6,049	Capacité totale ..... H.P.
53,509	18,026	-	16,662	42,977	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
9,960	-	-	18,963	48,854	<u>USINES COMMERCIALES</u>
-	-	-	7	1	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
-	-	-	2,753	200	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	-	-	4	13	Capacité totale ..... H.P.
8,500	-	-	15,000	45,775	Turbines à vapeur ..... Nomb.
4	-	-	7	13	Capacité totale ..... H.P.
1,460	-	-	1,210	2,879	Moteurs à gaz et à pétrole ..... Nomb.
7,094	-	-	16,662	39,455	Capacité totale ..... H.P.
51,100	19,490	-	-	4,610	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
4	1	-	-	1	<u>USINES MUNICIPALES</u>
1,600	1,750	-	-	775	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
2	6	-	-	1	Machines à vapeur, à mouvement alternatif ..... Nomb.
29,500	17,740	-	-	665	Capacité totale ..... H.P.
-	-	-	-	12	Turbines à vapeur ..... Nomb.
-	-	-	-	3,170	Capacité totale ..... H.P.
26,215	18,026	-	-	3,522	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
					<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.

TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1946

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL PRIMARY POWER</u> .....H.P.	10,001,712	9,370	206,707	153,572	5,434,273
Per cent of total for Canada .....	100.00	0.09	2.07	1.54	54.33
Water wheels and turbines ..... No.	854	6	55	17	288
Total capacity ..... H.P.	9,378,867	363	106,658	107,010	5,393,852
Steam reciprocating engines ..... No.	49	1	5	7	3
Total capacity ..... H.P.	17,795	75	2,990	2,980	255
Steam turbines ..... No.	116	4	20	10	8
Total capacity ..... H.P.	542,905	6,680	94,051	41,930	36,224
Gas and oil engines ..... No.	580	14	21	9	14
Total capacity ..... H.P.	62,145	2,252	3,008	1,652	3,962
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	8,312,358	6,993	172,244	131,385	4,603,991
Per cent of total for Canada .....	100.00	0.09	2.07	1.58	55.39
Dynamos, A.C. .... No.	1,361	21	100	41	308
Total capacity ..... Kv.A.	8,304,978	6,993	171,944	131,185	4,603,971
Dynamos, D.C. .... No.	218	-	1	1	1
Total capacity ..... Kw.	7,380	-	300	200	20
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	6,389,173	7,585	117,912	113,280	4,365,792
Water Wheels and turbines ..... No.	486	6	16	11	212
Total capacity ..... H.P.	6,104,383	363	25,878	94,150	4,361,672
Steam reciprocating engines ..... No.	31	1	5	7	1
Total capacity ..... H.P.	10,245	75	2,990	2,980	150
Steam turbines ..... No.	66	4	15	6	3
Total capacity ..... H.P.	241,255	6,680	86,845	15,550	3,500
Gas and oil engines ..... No.	409	9	8	2	6
Total capacity ..... H.P.	33,290	467	2,199	600	470
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	5,304,225	5,507	98,189	96,754	3,644,938
Dynamos, A.C. .... No.	785	16	43	24	216
Total capacity ..... Kv.A.	5,298,572	5,507	97,889	96,554	3,644,918
Dynamos, D.C. .... No.	188	-	1	1	1
Total capacity ..... Kw.	5,653	-	300	200	20
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	3,612,539	1,785	88,795	40,292	1,068,481
Water Wheels and turbines ..... No.	368	-	39	6	78
Total capacity ..... H.P.	3,274,484	-	80,780	12,860	1,032,160
Steam reciprocating engines ..... No.	18	-	-	-	2
Total capacity ..... H.P.	7,550	-	-	-	105
Steam turbines ..... No.	49	-	5	4	4
Total capacity ..... H.P.	301,650	-	7,206	26,380	32,724
Gas and oil engines ..... No.	171	5	13	7	8
Total capacity ..... H.P.	28,855	1,785	809	1,052	3,492
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	3,008,133	1,486	74,055	34,631	959,053
Dynamos, A.C. .... No.	576	5	57	17	90
Total capacity ..... Kv.A.	3,006,406	1,486	74,055	34,631	959,053
Dynamos, D.C. .... No.	30	-	-	-	-
Total capacity ..... Kw.	1,727	-	-	-	-



TABLEAU 10 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1946

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,475,160	554,533	170,328	217,152	780,817	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H.P.
24.75	5.54	1.70	2.17	7.81	Pourcentage du total pour le Canada ..... Nomb.
348	45	-	9	86	Turbines et roues hydrauliques ..... H.P.
2,432,597	532,300	-	91,000	715,107	Capacité totale ..... Nomb.
7	2	1	17	6	Machines à vapeur, à mouvement alternatif ..... H.P.
1,720	1,770	750	6,111	1,144	Capacité totale ..... Nomb.
4	6	26	19	19	Turbines à vapeur ..... H.P.
38,000	17,740	144,310	110,190	53,780	Capacité totale ..... Nomb.
16	24	265	144	73	Moteurs à gaz et à pétrole ..... H.P.
2,843	2,523	25,268	9,851	10,786	Capacité totale ..... Nomb.
					Capacité totale ..... H.P.
1,988,364	447,506	143,152	182,516	636,207	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
23.92	5.38	1.72	2.20	7.65	Pourcentage du total pour le Canada ..... Nomb.
370	77	147	124	175	Dynamios, C.A. .... H.P.
1,986,604	447,506	141,333	179,448	635,994	Capacité totale ..... Kv.A.
2	-	140	63	10	Dynamios, C.D. .... Nomb.
1,760	-	1,819	3,068	213	Capacité totale ..... Kw.
492,225	554,841	59,809	124,144	753,585	<u>USINES COMMERCIALES</u>
141	23	-	9	68	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
481,862	353,300	-	91,000	696,158	Turbines et roues hydrauliques ..... Nomb.
1	1	-	12	3	Capacité totale ..... H.P.
15	20	-	3,701	314	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	-	12	6	18	Capacité totale ..... H.P.
8,500	-	46,765	20,300	53,115	Turbines à vapeur ..... Nomb.
8	17	195	134	30	Capacité totale ..... H.P.
1,848	1,521	13,044	9,143	3,998	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
415,779	279,111	48,869	99,884	615,194	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
149	41	83	101	112	Dynamios, C.A. .... Nomb.
414,019	279,111	47,551	98,001	615,022	Capacité totale ..... Kv.A.
2	-	116	59	6	Dynamios, C.D. .... Nomb.
1,760	-	1,318	1,883	172	Capacité totale ..... Kw.
1,982,935	199,492	110,519	93,008	27,232	<u>USINES MUNICIPALES</u>
207	22	-	-	18	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
1,950,735	179,000	-	-	18,949	Turbines et roues hydrauliques ..... Nomb.
6	1	1	5	3	Capacité totale ..... H.P.
1,705	1,750	750	2,410	830	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	6	14	13	1	Capacité totale ..... H.P.
29,500	17,740	97,545	89,890	665	Turbines à vapeur ..... Nomb.
8	7	70	10	43	Capacité totale ..... H.P.
995	1,002	12,224	708	6,788	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
1,572,585	168,395	94,283	82,632	21,013	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
221	36	64	23	63	Dynamios, C.A. .... Nomb.
1,572,585	168,395	93,782	81,447	20,972	Capacité totale ..... Kv.A.
-	-	24	4	2	Dynamios, C.D. .... Nomb.
-	-	501	1,185	41	Capacité totale ..... Kw.



TABLE 11 - MAIN PLANT EQUIPMENT, 1946

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.	9,825,459	9,255	204,442	150,122	5,396,847
Per cent of total for Canada .....	100.00	0.10	2.08	1.53	54.93
Water Wheels and turbines ..... No.	854	6	55	17	288
Total Capacity ..... H.P.	9,378,867	363	106,658	107,010	5,393,832
Steam reciprocating engines ..... No.	28	-	2	4	3
Total Capacity ..... H.P.	8,552	-	1,200	2,080	255
Steam turbines ..... No.	75	4	19	6	-
Total Capacity ..... H.P.	386,281	6,680	93,381	39,380	-
Gas and oil engines ..... No.	533	13	17	9	8
Total Capacity ..... H.P.	51,759	2,192	2,603	1,652	2,760
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	8,162,806	6,945	170,421	128,662	4,570,097
Per cent of total for Canada .....	100.00	0.08	2.09	1.58	55.99
Dynamos, A.C. .... No.	1,263	20	93	34	296
Total Capacity ..... Kv.A.	8,156,916	6,945	170,421	128,462	4,570,077
Dynamos, D.C. .... No.	215	-	-	1	1
Total Capacity ..... Kw.	5,980	-	-	200	20
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	6,301,996	7,450	115,887	109,830	4,362,002
Per cent of total for Canada .....	100.00	0.12	1.84	1.74	69.22
Water Wheels and turbines ..... No.	486	6	16	11	212
Total Capacity ..... H.P.	6,104,383	363	25,878	94,150	4,361,672
Steam reciprocating engines ..... No.	16	-	2	4	1
Total Capacity ..... H.P.	5,127	-	1,800	2,080	150
Steam turbines ..... No.	39	4	14	2	-
Total Capacity ..... H.P.	165,260	6,680	86,175	13,000	-
Gas and oil engines ..... No.	379	8	7	2	2
Total Capacity ..... H.P.	27,226	407	2,034	600	180
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	5,233,480	5,459	96,551	94,031	3,641,813
Per cent of total for Canada .....	100.00	0.10	1.85	1.80	69.59
Dynamos, A.C. .... No.	724	15	39	17	213
Total Capacity ..... Kv.A.	5,229,227	5,459	96,551	93,831	3,641,793
Dynamos, D.C. .... No.	165	-	-	1	1
Total Capacity ..... Kw.	4,253	-	-	200	20
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.	3,523,463	1,785	88,555	40,292	1,034,845
Per cent of total for Canada .....	100.00	0.05	2.51	1.14	29.37
Water Wheels and turbines ..... No.	568	-	39	6	76
Total Capacity ..... H.P.	3,274,484	-	80,780	12,860	1,032,160
Steam reciprocating engines ..... No.	12	-	-	-	2
Total Capacity ..... H.P.	3,425	-	-	-	105
Steam turbines ..... No.	36	-	5	4	-
Total Capacity ..... H.P.	221,021	-	7,206	26,580	-
Gas and oil engines ..... No.	154	5	10	7	6
Total Capacity ..... H.P.	24,533	1,785	563	1,052	2,580
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	2,929,416	1,486	73,870	34,631	928,284
Per cent of total for Canada .....	100.00	0.05	2.52	1.18	31.69
Dynamos, A.C. .... No.	539	5	54	17	83
Total Capacity ..... Kv.A.	2,927,689	1,486	73,870	34,631	928,284
Dynamos, D.C. .... No.	30	-	-	-	-
Total Capacity ..... Kw.	1,727	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	7,782,303	338	87,095	92,238	4,567,578
Per cent of total for Canada .....	100.00	0.01	1.12	1.18	58.69
Dynamos, A.C. .... No.	847	5	55	16	286
Total Capacity ..... Kv.A.	7,780,263	338	87,095	92,038	4,567,558
Dynamos, D.C. .... No.	5	-	-	1	1
Total Capacity ..... Kw.	2,040	-	-	200	20
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	380,593	6,607	83,326	36,424	2,519
Per cent of total for Canada .....	100.00	1.74	21.89	9.57	0.66
Dynamos, A.C. .... No.	416	15	38	18	10
Total Capacity ..... Kv.A.	376,653	6,607	83,326	36,424	2,519
Dynamos, D.C. .... No.	210	-	-	-	-
Total Capacity ..... Kw.	3,940	-	-	-	-

x - Capacity of one hydraulic station in Saskatchewan included in Manitoba.

**TABIEAU 11 - OUTILLAGE DES USINES PRINCIPALES, 1946**

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,454,100 24.77 348 2,452,597	x 554,843 5.44 45 552,500	x 170,528 1.75 1 -	198,189 2.02 9 91,000	727,553 7.40 86 715,107	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Roues hydrauliques et turbines ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
5 120 - 12 1,385	1 20 - 24 2,525	1 750 26 144,510 25,268	10 3,358 15 95,190 8,641	4 169 5 7,340 48 4,737	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,955,055 25.95 360 1,955,295	429,480 5.26 70 429,480	143,152 1.75 147 141,535	165,854 2.05 108 163,886	593,230 7.27 135 593,017	<u>USINES COMMERCIALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
2 1,760	- -	140 1,819	61 1,968	10 213	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
482,265 7.65 141 481,862	554,841 5.63 25 553,500	59,809 0.95 - -	105,181 1.67 9 91,000	704,731 11.18 68 696,158	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
1 15 - 4 588	1 20 - 17 1,521	- - 12 46,765 13,044	5 948 2 5,300 7,933	2 114 5 7,340 1,119	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
408,685 7.81 145 406,925	279,111 5.33 41 279,111	48,669 0.95 85 47,551	83,222 1.59 85 82,439	575,739 11.00 86 575,567	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
2 1,760	- -	116 1,518	57 783	8 172	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,951,855 55.40 207 1,950,735	180,002 5.11 22 179,000	110,519 3.14 - -	93,008 2.64 - -	22,622 0.64 16 18,949	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
2 105 - - 8 995	- - - 7 1,002	1 750 14 97,545 70 12,224	5 2,410 13 89,890 10 708	2 55 - - 31 3,618	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,546,370 52.79 215 1,546,370	150,569 5.13 29 150,569	94,283 3.22 64 93,782	82,632 2.82 23 81,447	17,491 0.60 49 17,450	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
- -	- -	24 501	4 1,185	2 41	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,955,868 25.11 548 1,952,118	427,600 5.49 45 427,600	- - - -	71,500 .92 9 71,500	582,086 7.48 85 582,016	<u>USINES HYDRAULIQUES</u> <u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1 1,750	- -	- -	- -	2 70	<u>USINES A COMBUSTIBLE</u> <u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,187 0.51 14 1,177	1,880 0.50 25 1,880	143,152 37.61 147 141,335	94,354 24.79 99 92,386	11,144 2.93 50 11,001	<u>USINES A COMBUSTIBLE</u> <u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1 10	- -	140 1,819	61 1,968	8 143	

x - Rendement maximum d'une usine hydraulique de la Saskatchewan inclus dans le Manitoba.



TABLE 12 - ELECTRIC ENERGY GENERATED, 1946

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>ALL STATIONS</u>					
Total Kilowatt hours generated .....(thousands)	41,736,987	16,702	590,492	592,923	23,597,321
Per cent of total for Canada .....	100.00	0.04	1.42	1.42	56.54
Kilowatt hours generated by non-generating stations ..(Thousands)	1,035	-	-	-	-
Kilowatt hours generated by generating stations .....(thousands)	41,735,952	16,702	590,492	592,923	23,597,321
K.v.A. capacity of generating stations .....	8,289,862	6,993	170,571	128,662	4,593,991
Ratio of output to maximum capacity ..... p.c.	57.48	27.26	59.52	52.60	58.64
Average kilowatt hours per Kv.A. ....	5,035	2,588	3,462	4,608	5,137
<u>GENERATING STATIONS</u>					
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	26,996,711	13,209	342,413	457,876	18,957,865
Kv.A. capacity .....	5,297,405	5,507	96,701	94,031	3,644,938
Ratio of output to maximum capacity ..... p.c.	58.17	27.59	40.42	55.58	59.37
Average kilowatt hours per Kv.A. ....	5,096	2,399	3,541	4,869	5,201
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	26,562,215	513	101,200	421,424	18,957,180
Kv.A. capacity .....	5,132,749	386	19,738	81,975	3,644,686
Ratio of output to maximum capacity ..... p.c.	59.08	15.17	58.53	58.69	59.37
Average kilowatt hours per Kv.A. ....	5,175	1,329	5,127	5,141	5,201
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	434,496	12,696	241,213	36,452	705
Kv.A. capacity .....	164,656	5,121	76,963	12,056	272
Ratio of output to maximum capacity ..... p.c.	30.13	28.30	55.78	54.52	29.59
Average kilowatt hours per Kv.A. ....	2,639	2,479	3,134	3,024	2,592
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	14,739,241	3,493	248,079	135,047	4,639,456
Kv.A. capacity .....	2,992,457	1,486	73,870	34,631	949,053
Ratio of output to maximum capacity ..... p.c.	56.22	26.84	58.53	44.52	55.81
Average kilowatt hours per Kv.A. ....	4,925	2,351	3,358	3,900	4,889
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	14,229,949	-	239,742	23,569	4,635,188
Kv.A. capacity .....	2,776,520	-	67,507	10,263	946,806
Ratio of output to maximum capacity ..... p.c.	58.50	-	40.54	25.99	57.00
Average kilowatt hours per Kv.A. ....	5,125	-	3,551	2,277	4,993
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	509,292	3,493	8,337	111,678	6,268
Kv.A. capacity .....	215,937	1,486	6,363	24,568	2,247
Ratio of output to maximum capacity ..... p.c.	26.93	26.84	14.95	52.52	51.84
Average kilowatt hours per Kv.A. ....	2,359	2,351	1,310	4,585	2,789
<u>TOTAL HYDRAULIC STATIONS</u>					
Kilowatt hours generated ..... (thousands)	40,792,164	513	340,942	444,793	23,590,348
Kv.A. capacity .....	7,909,269	386	87,245	92,238	4,591,472
Ratio of output to maximum capacity ..... p.c.	58.88	15.17	44.61	55.05	58.65
Average kilowatt hours per Kv.A. ....	5,158	1,329	3,908	4,822	5,138
Kilowatt hours generated by water power ..... (thousands)	40,692,395	513	340,941	444,793	23,589,563
Kilowatt hours generated by auxiliary plants ..... (thousands)	99,769	-	1	-	785
<u>TOTAL FUEL STATIONS</u>					
Kilowatt hours generated ..... (thousands)	943,788	16,189	249,550	148,130	6,973
Kv.A. capacity .....	580,593	6,607	85,326	36,424	2,519
Ratio of output to maximum capacity ..... p.c.	28.31	27.97	34.19	46.43	31.60
Average kilowatt hours per Kv.A. ....	2,480	2,450	2,995	4,067	2,788
<u>CONSUMPTION OF ELECTRIC ENERGY (Thousands of Kilowatt Hours)</u>					
Total Kilowatt hours generated .....	41,736,987	16,702	590,492	592,923	23,597,321
Kilowatt hours imported from the United States .....	9,527	-	-	10	362
Kilowatt hours imported from other provinces .....	-	-	-	7,398	846
Kilowatt hours exported to the United States .....	2,481,631	-	-	58,032	2,703
Kilowatt hours exported to other provinces .....	-	-	-	-	5,151,591
<u>KILOWATT HOURS FOR CONSUMPTION IN CANADA</u> ..... (thousands)					
Domestic service .....	39,264,885	16,702	590,492	562,299	18,444,235
Commercial light .....	3,881,677	6,017	82,696	51,377	596,693
Small power .....	1,840,496	4,753	47,006	35,175	459,550
Large power .....	611,781	1,015	54,794	15,101	118,079
Municipal power .....	28,158,674	1,652	324,437	414,878	15,551,654
Street lighting .....	678,560	250	2,556	8,833	147,684
Free service (other than street lighting) .....	223,000	419	6,181	4,962	44,978
Losses .....	55,475	15	242	224	46,061
.....	3,815,220	2,581	72,580	31,749	1,479,756

Excludes exports to other provinces and/or to the United States.



TABLEAU 12 - ENERGIE ELECTRIQUE GENEREE, 1946

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia & Yukon	
10,778,135	2,589,375	270,691	602,048	2,899,500	<u>TOUTES USINES</u>
25.82	5.72	0.65	1.44	6.95	Total kw. heure générés ..... (milliers)
15	30	-	-	990	Pourcentage du total pour le Canada .....
10,778,120	2,589,345	270,691	602,048	2,898,510	Kilowatt-heure générés par les usines non-génératrices ..... (milliers)
1,986,055	445,230	145,152	182,516	654,692	Kilowatt-heure générés par les usines génératrices ..... (milliers)
61.95	61.54	21.59	37.66	52.12	Capacité des usines génératrices en Kv.A. ....
5,427	5,391	1,891	5,299	4,566	Proportion de la production à la capacité maximum ..... p.c.
					Moyenne de kilowatt-heure par Kv.A. ....
					<u>USINES GENERATRICES</u>
					<u>USINES COMMERCIALES</u>
					<u>TOTAL</u>
2,204,953	1,670,607	91,404	407,170	2,851,254	Kilowatt-heure générés ..... (milliers)
414,685	279,111	48,869	99,884	613,679	Capacité en Kv.A. ....
60.70	68.52	21.55	46.55	53.04	Proportion de la production à la capacité maximum ..... p.c.
5,517	5,985	1,870	4,076	4,606	Moyenne de kilowatt-heure par Kv.A. ....
					<u>Usines Hydrauliques</u>
2,204,585	1,669,049	-	582,125	2,826,161	Kilowatt-heure générés ..... (milliers)
414,545	278,100	-	88,162	605,377	Capacité en Kv.A. ....
60.74	68.52	-	49.47	55.29	Proportion de production à la capacité maximum ..... p.c.
5,521	6,002	-	4,554	4,668	Moyenne de kilowatt-heure par Kv.A. ....
					<u>Usines a combustible</u>
548	1,558	91,404	25,047	25,075	Kilowatt-heure générés ..... (milliers)
340	1,011	48,869	11,722	8,302	Capacité en Kv.A. ....
11.69	17.59	21.55	24.59	54.47	Proportion de production à la capacité maximum ..... p.c.
1,024	1,541	1,870	2,157	5,020	Moyenne de kilowatt-heure par Kv.A. ....
					<u>USINES MUNICIPALES</u>
					<u>TOTAL</u>
8,573,187	718,738	179,287	194,878	47,076	Kilowatt-heure générés ..... (milliers)
1,571,370	164,119	94,283	82,632	21,013	Capacité en Kv.A. ....
62.28	49.99	21.71	26.92	25.57	Proportion de la production à la capacité maximum ..... p.c.
5,456	4,379	1,902	2,358	2,240	Moyenne de kilowatt-heure par Kv.A. ....
					<u>Usines Hydrauliques</u>
8,571,625	717,521	-	-	44,706	Kilowatt-heure générés ..... (milliers)
1,570,523	165,250	-	-	18,171	Capacité en Kv.A. ....
62.51	50.16	-	-	28.08	Proportion de production à la capacité maximum ..... p.c.
5,458	4,594	-	-	2,460	Moyenne de kilowatt-heure par Kv.A. ....
					<u>Usines a combustible</u>
1,564	1,417	179,287	194,878	2,370	Kilowatt-heure générés ..... (milliers)
847	869	94,283	82,632	2,842	Capacité en Kv.A. ....
21.08	18.62	21.71	26.92	9.52	Proportion de la production à la capacité maximum ..... p.c.
1,847	1,651	1,902	2,358	854	Moyenne de kilowatt-heure par Kv.A. ....
					<u>TOUTES USINES HYDRAULIQUES</u>
10,776,208	2,586,370	-	582,125	2,870,867	Kilowatt-heure générés ..... (milliers)
1,984,868	441,550	-	88,162	625,548	Capacité en Kv.A. ....
61.97	61.72	-	49.47	52.56	Proportion de la production à la capacité maximum ..... p.c.
5,429	5,407	-	4,554	4,604	Moyenne de kilowatt-heure par Kv.A. ....
10,771,742	2,586,558	-	557,057	2,801,448	Kilowatt-heure générés par force motrice hydraulique ..... (milliers)
4,466	52	-	25,066	69,419	Kilowatt-heure générés par les usines auxiliaires ..... (milliers)
					<u>TOUTES USINES A COMBUSTIBLE</u>
1,912	2,975	270,691	219,925	27,445	Kilowatt-heure générés ..... (milliers)
1,187	1,880	145,152	94,554	11,144	Capacité en Kv.A. ....
18.59	18.06	21.59	26.61	28.12	Proportion de la production à la capacité maximum ..... p.c.
1,611	1,582	1,891	2,351	2,463	Moyenne de kilowatt-heure par Kv.A. ....
					<u>CONSOMMATION D'ENERGIE ELECTRIQUE (En Milliers de Kw.H.)</u>
10,778,135	2,589,375	270,691	602,048	2,899,500	Total de kilowatt-heure générés .....
-	324	50	130	8,651	Kilowatt-heure importés des Etats-Unis .....
5,144,195	-	-	7,164	-	Kilowatt-heure importés d'autres provinces .....
2,458,705	1,814	-	-	377	Kilowatt-heure exportés aux Etats-Unis .....
846	-	-	-	7,164	Kilowatt-heure exportés à d'autres provinces .....
					<u>KILOWATT-HEURE CONSOMMES AU CANADA</u> ..... (milliers)
15,482,777	2,587,885	270,741	602,178	2,907,574	Service domestique .....
2,289,008	457,464	68,550	75,756	274,158	Eclairage commercial .....
868,576	127,005	55,375	68,615	174,643	Petite force motrice .....
245,582	67,806	34,651	37,859	58,954	Grosse force motrice .....
8,156,410	1,516,745	56,894	516,450	2,039,556	Energie (municipale) .....
362,872	116,034	20,905	16,847	2,589	Eclairage des rues .....
100,705	22,015	8,651	10,941	24,170	Service gratuit (autre que l'éclairage des rues) .....
511	224	140	2,608	5,150	Pertes .....
1,500,857	280,596	25,655	75,102	548,584	

\* Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.

TABLE 13 - FUEL, 1946

	<div>Bituminous Coal</div> <div>Charbon Bitumineux</div>			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA .....	559,606	2,843,449	5,124	46,626
Prince Edward Island .....	15,985	150,052	-	-
Nova Scotia .....	208,598	1,188,294	-	-
New Brunswick .....	123,532	789,583	-	-
Quebec .....	324	2,946	388	4,505
Ontario .....	295	2,429	4,736	42,121
Manitoba .....	-	-	-	-
Saskatchewan .....	125,767	494,146	-	-
Alberta .....	70,561	138,176	-	-
British Columbia and Yukon ..	14,544	77,823	-	-
	<div>Fuel Oil and Diesel Oil</div> <div>Mazout et huile diesel</div>		<div>Wood</div> <div>Bois</div>	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Gal. Gal.	\$	Cords Cordes	\$
CANADA .....	26,238,166	1,786,098	300	1,700
Prince Edward Island .....	788,293	62,597	-	-
Nova Scotia .....	205,831	20,521	-	-
New Brunswick .....	190,838	19,247	-	-
Quebec .....	534,487	55,763	250	1,250
Ontario .....	256,581	30,690	-	-
Manitoba .....	284,544	35,172	50	450
Saskatchewan .....	14,904,811	791,882	-	-
Alberta .....	802,519	112,648	-	-
British Columbia and Yukon ..	8,270,262	657,578	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu. ft.

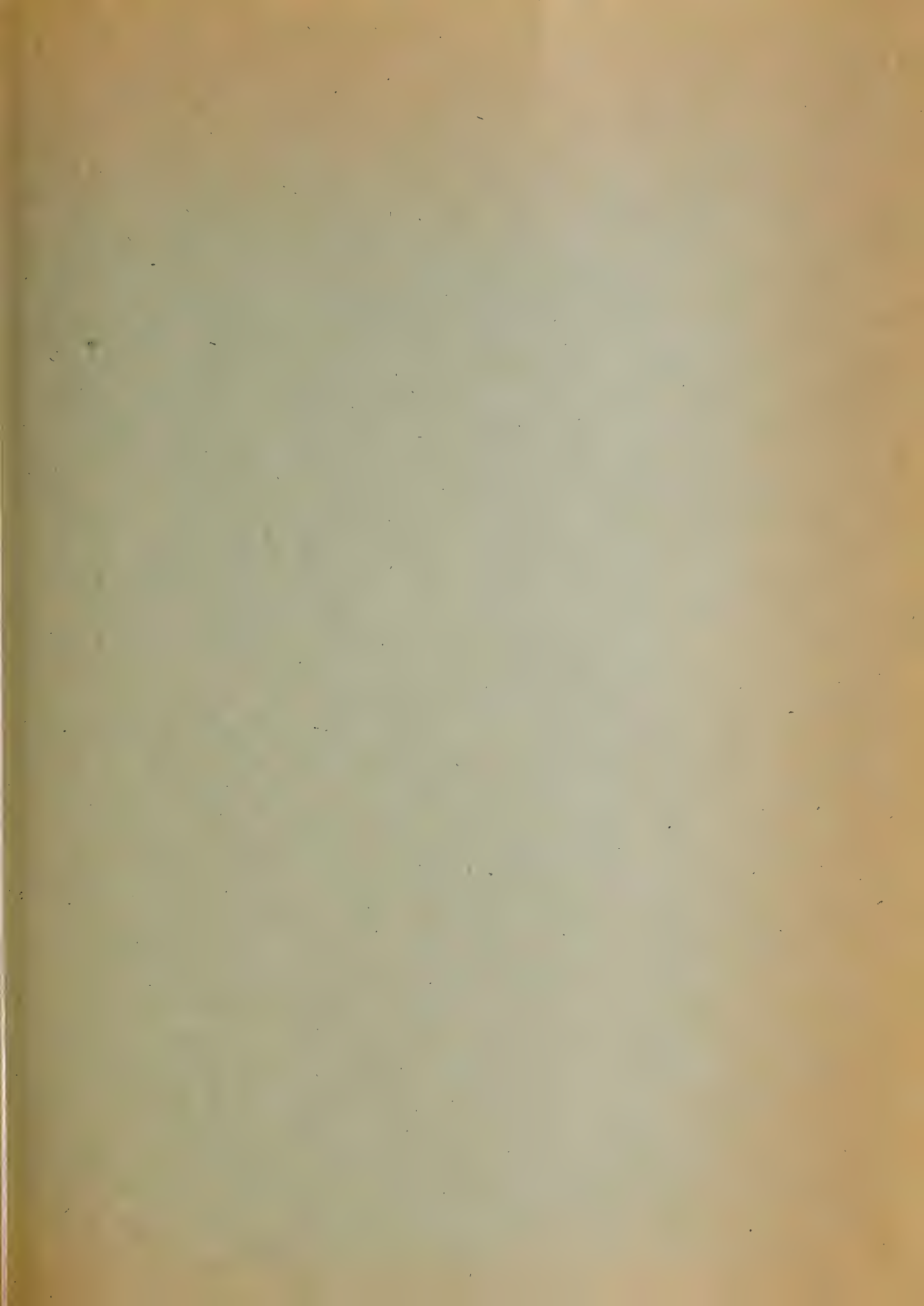
TABLEAU 13 - COMBUSTIBLE, 1946

Lignite Coal Charbon Lignite		Gasoline		Kerosene	
Canadian - Canadien		Gasoline		Kérosène	
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
218,062	510,007	76,274	17,068	3,605	818
-	-	20,043	5,107	-	-
-	-	11,200	1,316	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	3,980	736	-	-
-	-	165	58	-	-
49,244	75,749	23,285	5,514	-	-
168,818	434,258	12,432	2,801	3,595	810
-	-	5,169	1,536	10	8
Manufactured Gas Gaz fabriqué		Natural Gas Gaz naturel		Other Fuel Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu. ft. 1,000 pds. cu.	\$	1,000 cu. ft. 1,000 pds. cu.	\$	\$	\$
10,124,003	186,630	-	-	70,168	5,585,206
-	-	-	-	-	217,756
10,124,003	186,630	-	-	6,792	1,403,553
-	-	-	-	-	808,830
-	-	-	-	-	64,464
-	-	-	-	-	75,976
-	-	-	-	29,725	65,405
-	-	-	-	490	1,367,781
-	-	-	-	-	811,335
-	-	-	-	33,161	770,106

Note: Tonne = 2,000 livres.  
Gallon = Impérial  
Corde = 128 pds. cu.







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## CENTRAL ELECTRIC STATION INDUSTRY

1 9 4 7

For the purpose of the annual census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals and (b) municipal, those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase practically all the power they sell. In this last class there were 12 stations which were holding generating equipment classed as auxiliary plant equipment. Eight of them purchased all their electric energy and the remaining four generated only 679,000 kilowatt hours. This explains the rather anomalous item in table 12 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible. Equipment, which is not used primarily for the Central Electric Station Industry, is not shown in the current report, accounting for a drop in the number of units listed for commercial stations as compared with former years. This is especially noticeable in Saskatchewan and Alberta.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the output of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods. Moreover, the monthly does not include statistics for several small stations and shows net power generated by reporting stations, whereas the annual excludes power for company use.

During 1947 primary power consumed in Canada (including all line losses) increased from 1,197,396,000 kilowatt hours in 1946 to 35,816,005,000 kilowatt hours, or by 14.8 per cent, but the consumption of secondary power decreased from 8,067,487,000 kilowatt hours in 1946 to 5,595,344,000, or by 30.6 per cent.

Secondary power is off-peak or surplus power delivered as it is available. It is subject to interruption or variation daily and seasonally, and consequently is sold at relatively low rates. The stations endeavour to keep their "secondary" customers advised as much in advance as possible of interruptions or reductions, which may be due to variations in water supply or in the demands of customers for primary power.

Primary power, also known in the industry as firm power, is power delivered as and when demanded by the customer. Stations must be ready to deliver power to primary power customers up to the amount contracted for, whenever the customer requires it, and consequently must have sufficient capacity to take care of all such demands. In practice, all customers on a system do not require their maximum deliveries at the same time and generally there is a considerable difference hourly and daily in the rate at which the power plant must operate to produce the power as required. Most of the secondary power is sold

to pulp and paper mills for the production of low pressure steam where short interruptions of the electric energy for the boilers can be tolerated without much inconvenience. Secondary sales are confined mainly to Quebec, Ontario and Manitoba.

According to monthly reports, the consumption of primary power continued to decline up to and including August, 1946, but from then on steady increases were recorded. Deliveries of secondary power monthly were considerably greater in 1946 than in 1945 but began to register declines in 1947 which were continued to include March, 1949. The cumulative total for the first eight months of 1949 was 2,095,810,000 kilowatt hours of secondary consumption against 1,809,996,000 in the same months of 1948 and 4,318,656,000 in a similar period of 1947. During 1947 the pulp and paper industry again became the largest user of electrical energy, accounting for some 23 p.c. of the total production. The aluminium industry, which is included in the metal, smelting and refining class, was also a major consumer; approximately ten kilowatt hours of energy is required to produce one pound of aluminium. Secondary exports were 637,517,000 kilowatt hours during 1947 compared with 1,074,315,000 in 1946.

The production of electric energy for secondary use each month is shown below:

SECONDARY POWER FOR USE IN CANADA  
(Thousands of Kilowatt Hours)

Month	1 9 3 9	1 9 4 4	1 9 4 5	1 9 4 6	1 9 4 7
January	607,070	132,138	545,019	680,016	591,531
February	605,257	146,975	506,380	645,940	566,473
March	619,756	167,028	618,420	728,074	629,033
April	527,079	162,288	674,236	735,281	539,236
May	578,058	319,574	623,467	758,487	574,708
June	526,652	263,938	560,819	679,995	546,714
July	488,165	126,336	491,774	669,444	485,508
August	505,652	209,721	481,841	661,116	385,453
September	590,900	201,485	450,404	589,653	362,825
October	684,433	267,605	545,700	641,481	434,161
November	685,441	347,940	574,349	649,611	265,024
December	615,246	398,093	573,415	628,389	215,678
TOTAL	7,033,709	2,743,121	6,645,824	8,067,487	5,595,344



For the following table data covering the 6 groups were taken from the industrial census reports of the industries; and consumption for other industries was computed by deduction, and consequently is only approximately correct. Ferro-alloys and steel furnaces are now shown under the heading of Primary Iron and Steel, which also covers pig iron and rolling mills.

DISTRIBUTION AND CONSUMPTION OF ELECTRIC ENERGY GENERATED, 1947  
(Thousands of Kilowatt Hours)

Industries	Central Electric Station Power Purchased				Power Generated by the Industries for own use
	Power and Light	Other Purposes	Total Central Electric Stn. Power	P.C. of Total Production	
Pulp and Paper .....	6,487,951	3,484,754	9,972,705	22.96	2,316,376
Primary Iron and Steel .....	441,627	1,165,414	1,607,041	3.70	101,212
Abrasives .....	24,656	807,338	831,994	1.92	-
Electro-Chemicals .....	124,656	1,232,920	1,357,576	3.15	109,007
Metal, Smelting & Refining .....	758,409	6,744,744	7,503,153	17.28	552,604
Other Manufacturing .....	4,807,405	648,365	5,455,770	12.56	388,336
Total Manufactures ....	12,644,704	14,083,535	26,728,239	61.55	3,467,535
Other Industries .....			4,130,662	9.51	
Domestic Service (Residential) .....			4,383,222	10.09	
Commercial Lighting .....			2,060,614	4.75	
Street Lighting .....			245,442	0.56	
Free Service .....			68,327	0.16	
Exports to U.S.A. ....			2,066,487	4.76	
Losses .....			3,741,806	8.62	
TOTAL OUTPUT OF CENTRAL ELECTRIC STATIONS .....			45,424,799	100.00	

Electricity is exported from Canada only by licence granted by the Electricity and Gas Inspection Services of the Department of Trade and Commerce, and the same branch of the Department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the calendar year ended December 31, 1947, the export duty amounted to \$502,615.36. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported.



Below is a table showing the quantities of power exported for the calendar year 1947. The data for this table were compiled from the reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS EXPORTED TO THE UNITED STATES  
(Calendar Years 1946 and 1947)

Company	Exported 1 9 4 6	Exported 1 9 4 7
	Kw. Hrs.	Kw. Hrs.
Hydro Electric Power Commission of Ontario .....	394,200,000	391,102,400
" " " " " " (surplus)- Niagara	850,952,549	484,844,500
" " " " " " " - Cornwall	127,867,000	68,210,000
Quebec Hydro Commission .....	614,992,847	634,475,609
Canadian Niagara Power Company, Ltd. ....	324,484,986	321,725,500
" " " " " (surplus) .....	93,806,074	71,269,622
Ontario and Minnesota Power Company .....	32,073,000	48,429,000
Maine and New Brunswick Electric Power Company .....	33,876,359	34,938,946
British Columbia Electric Railway Company, Ltd. ....	323,260	408,630
Northport Power and Light Company .....	20,619	33,210
Southern Canada Power Company .....	2,703,079	4,289,825
Canadian Cottons, Ltd. ....	2,868,000	422,400
Northern British Columbia Power Company .....	33,120	35,410
Fraser Companies, Ltd. ....	1,288,000	4,169,000
Detroit and Windsor Subway Company .....	328,100	323,400
Manitoba Power Commission .....	1,813,740	1,809,600
TOTAL .....	2,481,630,733	2,066,486,852

Of the total Canadian output of 43,424,799,000 kilowatt hours, 42,273,167,000 kilowatt hours, or 97.3 per cent, was produced by water power, whereas only 1,035,199,000 kilowatt hours were produced by plants using only thermal engines and 116,433,000 kilowatt hours were produced by therm auxiliary equipment in hydraulic plants and in non-generating plants.

Total hydraulic installations in all industries in Canada at the close of 1947, including active and inactive plants, as compiled by the Dominion Water and Power Bureau, were rated at 10,490,923 horse power. The available and developed water power in each province is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24 hour Power at 80% Efficiency		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 4 7	1 9 4 8
	H. P.	H. P.	H. P.	H. P.
Prince Edward Island ....	3,000	5,300	2,617	2,617
Nova Scotia .....	20,800	128,300	133,384	140,884
New Brunswick .....	68,600	169,100	133,347	133,347
Quebec .....	8,459,000	13,064,000	5,878,872	5,939,697
Ontario .....	5,407,200	7,261,400	2,749,740	2,894,240
Manitoba .....	3,309,000	5,344,500	458,825	503,700
Saskatchewan .....	542,000	1,082,000	90,835	111,835
Alberta .....	507,800	1,258,000	106,560	106,560
British Columbia .....	7,023,000	10,998,000	917,024	1,009,769
Yukon and Northwest Territories ..	382,500	813,500	19,719	28,069
CANADA .....	25,722,900	40,124,100	10,490,923	10,870,718

The horse power figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded, which will increase the totals. With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada was 52,000,000 horse power at the end of 1948. To this estimate must now be added the potential of Newfoundland - Labrador of some 5,000,000 horse power, of which about 5 p.c. has been developed.

Figuratively, nearly every Canadian has the miracle of an "electric horse" at his command to help him do his work, to light his way, to chill or cook his food, to heat his water, to drive his tram or train, to bring him music and entertainment, to turn night into day, and do a thousand and one things with incredible speed and efficiency. This magic horse is willing and able to work 24 hours a day the year long - ever at the call of his master's finger tip. The miracle of electricity has made possible our standard of living and the tremendous development of the past half century. And in reserve, thundering down the white-maned falls and rapids of the hinterland, many millions of magic Centaurs<sup>x</sup> await the harness of this and future generations.

<sup>x</sup> "A mythic and powerful archer, half man, half beast, who neighs like a horse, whose eyes sparkle with fire and strike dead like lightning".



TABLE 1 - (Page 14) - COMPARATIVE SUMMARY, 1938-1947

In the period from 1938 to 1947 revenues of central electric stations have risen from \$144,581,627 to \$258,929,627, or by 65.5 p.c., while electric energy generated advanced from 28,154,180 kilowatt hours to 43,424,799,000, or by 66.0 p.c. The number of domestic customers, including farm service, rose 686,859 in the decade to 2,248,253 and average consumption increased considerably along with the installation of electrical appliances and motors.

Revenues from domestic or residential use rose from \$62,820,120 in 1946 to \$70,258,591 in 1947, or by 11.6 p.c.; from commercial lighting, \$37,204,822 to \$40,789,520; and from street lighting from \$5,261,115 to \$5,367,304. Small power users paid \$12,014,540 in 1947 compared with \$11,622,392 one year earlier while large power customers, such as paper mills and smelters, contributed \$106,636,652 as against \$105,495,981, up 1.1 p.c.

Reported expenses, which include only four items - wages, power purchased, fuel and taxes, increased from \$154,708,176 in 1946 to \$182,136,045. Wages rose from \$52,380,686 to \$67,417,317 with an increase of 2,127 employees; taxes were \$26,218,543 against \$22,189,479 in 1946; cost of purchased power (interchanged between stations) advanced from \$76,572,805 to \$81,815,780, while fuel costs were up \$1,099,198 over 1946 at \$6,684,405 during 1947.

Pole line mileage increased considerably during the year at 98,330 miles compared with 89,351 miles in 1946, and with wooden pole mileage advancing from 80,759 miles to 89,864. Customers numbered 2,643,327 in 1947, almost double the number twenty years previous and about 166,500 above 1946. Domestic or residential service customers, including farms, represented 2,246,253 or 85 p.c. of the national total. The farm customers added during the year aggregated 21,246 with the total 189,518, an increase of 14.3 p.c. against an advance of 6.2 p.c. in other domestic service customers.

Total production of all stations amounted to 43,424,799,000 kilowatt hours, of which 2,056,487,000 or 4.8 p.c. was exported to the United States. Imports from the North West Power Pool (Bonneville, etc.) by British Columbia stations totalled 51,979,000 kilowatt hours during 1947, while total imports for all Canada were 53,037,000 kilowatt hours. Commercial stations generated 27,665,524,000 kilowatt hours during the year, or 63.7 p.c. of the national total, while municipal stations contributed 15,759,275,000 kilowatt hours, or 36.3 p.c.

However, municipal stations purchased considerable of the output of commercial stations at wholesale and distributed it to their widespread customers. This is particularly true of Western Quebec where commercial stations deliver a large part of their production to the Ontario Hydro Commission's system. Revenues of municipal stations were \$129,066,412 in 1947 compared with \$109,863,208 for commercial stations and the municipal group had twice as many customers as the commercial.

The total capacity of primary equipment in central station main plants registered a small decrease from 1946, falling from 9,825,458 to 9,601,157 horse power. Primary here signifies water wheels and turbines, steam and internal combustion engines used to operate generators, which in turn are classed as secondary power equipment. The decline from 1946 was due to a change in British Columbia where Consolidated Mining and Smelting Company took over West Kootenay central plants 2, 3, 4 and 5, which formerly generated power for sale mainly to the company.

TABLE 2 - (Page 16) - DOMESTIC SERVICE, 1938-1947

This table illustrates the steady growth in the number of domestic customers, total consumption, revenue, average consumption per customer and in the annual average bill over the period from 1938 to 1947, for Canada and in each province. Contrasting with these advances in the industry is the noteworthy decrease in revenue per kilowatt hour - a unique exception in an era of rising prices. This is confirmed by the annual index numbers of cost of electricity for domestic service which dropped from 96.4 in 1938 on the 1935-39 base of 100 to 84.8 in 1947. Similarly, rates for like amounts of commercial and small power for a representative city registered decreases from 1938 to 1947 of about 8 p.c. despite increased taxes and operating costs.

In all provinces the number of domestic customers, including farms, increased considerably during the period, the percentage gains ranging from 33 p.c. in Ontario to 72 p.c. in New Brunswick. The rate of consumption also rose steadily in each province with the largest relative advances in the Maritimes and Quebec. Revenues increased by 70 p.c. or \$28,956,484 to \$70,258,591, with every province registering improvement. The average annual consumption per customer varied widely between provinces, Manitoba leading with a 1947 average of 4,504 kilowatt hours due in part to water heaters, and New Brunswick



recorded the smallest consumption at 851 kilowatt hours. Ontario averaged 2,758 kilowatt hours per domestic customer against 1,096 in Quebec and 1,437 in British Columbia.

In the face of rising consumption the annual average bills have shown relatively small changes over the past ten years. The 1947 average for Canada stood at \$31.28 compared with \$26.49 in 1938, an increase of only 18.1 p.c., whereas consumption jumped over 100 p.c. Bills ranged from \$24.00 in Quebec to \$50.16 in Prince Edward Island, with Ontario at \$31.61. Prince Edward Island, Saskatchewan and Alberta bills were partly affected by the higher costs of thermal generation, whereas the Manitoba average reflects the widespread use of flat rate water heaters. The bills exclude federal, provincial or municipal taxes on electricity purchased.

Domestic service is discussed further under Table 4 and elsewhere in this report on pages 11, 12, etc.

TABLE 3 - (Page 18) - POWER PLANTS

Generating stations are the individual power plants of the central electric organizations. Each building housing power-producing machinery is counted as a generating station. The commercial organizations are companies or individuals selling electric energy and the municipal group includes urban and rural municipalities, provincial commissions, etc. selling power. Those generating power may operate from one to several power plants each, sometimes sited at different falls or rapids on the same river as the Gatineau, Ottawa, etc. The largest system is the Ontario Hydro-Electric Power Commission which operated 55 hydraulic plants and owned one steam auxiliary plant in 1947. The auxiliary or standby plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included above as generating stations.

Of the 607 plants operated during 1947, 310 were hydraulic, principally in Ontario, Quebec and British Columbia, while 297 were thermal situated mainly in Saskatchewan and Alberta. However, the hydraulic stations generated nearly 98 p.c. of the power produced in Canada during the year.

TABLE 4 - (Pages 20-21) - REVENUES

Central electric stations report a division of customers, consumption and revenue according to the following headings: (1) farm service, (2) domestic service, which includes lighting and all other residential uses, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) beginning in 1946, power, municipal, mainly used in water pumping stations, (7) sales to distributing companies, and (8) street lighting; also, the quantity of electricity supplied free to public buildings, company towns, etc.

The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province, the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick and Alberta, which purchased power from other provinces, were lower than they should have been.

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services for each station, but even here the use of electric stoves, flat rate water heaters, the source of supply, the firm power load, the amount for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills, aluminum plants, wholesale to Ontario, etc., showed a smaller proportion of revenue from domestic service than any other stations, although greater in dollars than those in other provinces except Ontario. In computing the average total revenue per kilowatt hour all line losses were included, but for domestic service and farm services, for commercial light, etc., line losses were not included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours sold, including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities when the consumption increases, the average cost per kilowatt hour to the consumer decreases. Also, where flat rates apply to water heaters, the average cost per kilowatt hour for all domestic services is reduced and, as the number of flat rate heaters is increased, the average for the municipality or province is decreased, if not offset by increases



in rates elsewhere. The average revenue of 1.60 cents per kilowatt hour for all domestic service, or 1.55 cents with farm services excluded, compares with an average of 5.09 cents in the United States, or nearly double the Canadian figure. Over 50 p.c. of U.S. generation is by steam compared with about 2 p.c. in Canada. The average revenues per horse power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations the equipment capacities shown in table 12 were increased one horse power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,138 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro-Electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per unit for each horse power purchased. It is quite probable this output is a little too high for all the power imported from Quebec, and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

The Federal sales tax on domestic service bills has been treated by practically all central electric stations as a tax on the consumer and was not included in either revenues or expenses. The Act placed the tax on the producer or importer, but a subsequent Order in Council allowed the producer or importer to increase the charge to the consumer by the amount of the tax irrespective of any agreements, charters, etc. Only a few stations absorbed this tax, most of them passed it on to the consumer. Also, provincial and municipal taxes on domestic bills, where imposed, have not been included as either revenue or expenses. The 8 p.c. Federal tax was removed November 17, 1947. Quebec (2 p.c.) and Saskatchewan impose a provincial tax in addition to a few municipalities levying a municipal tax on domestic consumers.

TABLE 5 - (Pages 22-23) - EXPENSES

This table includes only the four expense items, (1) salaries and wages, (2) fuel, (3) taxes and (4) cost of purchased power. The last is an intra-industry expense and might be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. The cost of power item includes the cost to municipalities receiving their supply from provincial commissions as well as the interchange of power between generating stations and also between generating and non-generating. As explained above, the sales taxes on domestic bills have not been included in the taxes given in this table. In the 1946 annual report salaries and wages paid to central electric station employees for construction work were not included in table 5. A revised version of the table is given on page 38 to include this omission for 1946.

To supplement Table 5, the details of taxes reported by commercial and municipal stations are presented below. Only in the few cases where the station absorbed the sales taxes are such taxes included. Water rentals also are excluded. The Federal unemployment insurance tax did not apply generally to utility employees until September 1, 1945, and apparently some stations still did not include the employer payments as a Dominion tax in 1947. Similarly, all stations did not include under taxes, the federal and provincial taxes on gasoline used by their vehicles, etc. It is common practice to treat sales tax as part of the cost of the commodity. The Dominion tax included income and excess profits tax, tax on exports of electricity, and the two mentioned above. The greater part of the municipal tax paid by municipal stations, was tax payments continued by the Ontario Hydro-Electric Commission on plants acquired from commercial stations, and in Quebec export taxes and other taxes paid by the Quebec Hydro-Electric Commission principally to the City of Montreal. In addition, the Quebec Commission contributed \$2,800,000 to the provincial Education Fund, which item was not reported as a tax until 1947. Total taxes reported by the industry during 1947, including contribution of Quebec Hydro, were \$28,718,545.

REPORTED TAXES, 1947

Province	Commercial Stations				Municipal Stations			
	Municipal	Provincial	Dominion	Total	Municipal	Provincial	Dominion	Total
	\$	\$	\$	\$	\$	\$	\$	\$
P. E. Island .....	20,887	2,797	1,824	25,511	-	-	-	-
Nova Scotia .....	458,260	74,795	468,478	981,528	65,513	1,555	11,249	78,317
New Brunswick .....	86,965	28,584	84,801	182,150	171	95	55,024	55,358
Quebec .....	2,368,800	8,260,211	7,435,289	18,064,300	745,528	3,539,885	192,250	4,477,643
Ontario .....	478,291	241,257	1,145,043	1,864,591	634,940	97,590	549,466	1,081,996
Manitoba .....	145,248	4,251	8,077	153,576	120,825	-	3,843	124,668
Saskatchewan .....	52,515	329	85,390	138,234	74,595	-	-	74,595
Alberta .....	55,092	103,558	637,532	796,182	253,084	-	1,963	255,047
British Columbia ...)								
Yukon & N.W.T. ....)	424,312	233,839	2,121,724	2,780,475	42,465	-	-	42,465
Total .....	4,042,070	3,949,341	12,031,053	20,022,464	1,937,111	3,539,123	619,845	6,196,079
Total-Commercial Stns	4,042,070	3,949,341	12,031,053	20,022,464				
" -Municipal "	1,937,111	3,539,123	619,845	6,196,079				
Total	5,979,181	7,588,464	12,650,898	26,218,543				



TABLE 6 (Pages 24-25) - EMPLOYEES

There was an increase of 2,127 employees during the year with all provinces, excepting New Brunswick and Alberta, reporting heavier employment. The total at 26,704 included 10,570 in commercial and 16,134 employees in municipal stations. Some 20,441 were engaged in generating stations and 6,263 in non-generating or distributive organizations. Employment totals are based on the average number of employees per month.

On a provincial basis, 41 p.c. of the national total were employed in Ontario, 27 p.c. in Quebec, 9 p.c. in British Columbia, 14 p.c. on the Prairies and 9 p.c. in the Maritimes. Some 8,526 employees were on salaries while 18,178 were on wages. Among the generating stations, hydraulic operations required 18,016 employees, while fuel stations producing but 2.4 p.c. of the electric energy generated during 1947 employed 2,425.

TABLE 7 (Pages 26-27) - CUSTOMERS

As outlined under Table 4, stations report a segregation of customers into seven classes, but in the past many stations included farm customers with domestic customers, and in the Bureau's reports all customers in these two classes consequently were combined under "Domestic Customers". Below is a table giving the farm customers as reported, together with the respective consumptions and revenues received from them. Such revenues do not include taxes paid by the consumer, as previously explained. Due to the increasing activity in rural electrification, it is probable that current data are more comprehensive than previously reported. Installations were extended to 21,246 new farm customers during 1947, and the total at 169,518 was up 14.3 p.c. over 1946 compared with an increase of 6.2 p.c. or 120,458 in residential urban service. The two services are combined under "Domestic" in tables 2, 4, 7 and 12 as in previous years for comparative purposes. The relatively large number of farm customers and low average revenue per kilowatt hour in Ontario reflects the assistance given by the Ontario Government to this class of service. Farm customers in Ontario include only farms, whereas in years previous to 1945 rural customers in hamlets were also included. With over 725,000 rural farms in Canada, the total of 169,518 farm customers indicates that about 23.4 p.c. enjoyed the benefits of power line service at the end of 1947 compared with nearly two-thirds of the farms in the United States.

FARM SERVICE, 1947

Province	Number of Customers	Kilowatt Hours	Revenue	Kw. Hrs. per Customer	Average <sup>(1)</sup> Annual Bill	Revenue <sup>(1)</sup> per Kw. Hr.	P.C. of Dominion Farm Service Consumption
			\$		\$	\$	%
Prince Edward Island	2,822	2,204,692	138,833	781	49.20	6.5	0.77
Nova Scotia	11,454	7,406,572	300,668	647	26.25	4.1	2.59
New Brunswick	7,949	4,452,800	243,897	560	30.68	5.5	1.56
Quebec	54,245	38,246,833	1,338,379	705	24.67	3.5	13.39
Ontario	81,670	212,496,914	3,622,389	2,602	44.35	1.7	74.36
Manitoba	3,496	5,866,434	210,121	1,678	60.10	3.6	2.05
Saskatchewan	739	665,037	52,151	900	70.57	7.8	0.25
Alberta	2,275	3,844,386	214,435	1,690	94.26	5.6	1.55
British Columbia	4,868	10,569,439	275,783	2,171	56.65	2.6	5.70
Canada	169,518	285,753,107	6,396,656	1,686	37.73	2.2	100.00

(1) Federal, Provincial and Municipal taxes on the electricity purchased are not included.



TABLE 8 - POLE LINE MILEAGE - (Pages 28-29)

Transmission and distribution lines are combined in this table and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileage.

TABLES 9 - 10 - 11 - EQUIPMENT - (Pages 28-33)

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 115,754,000 kilowatt hours being generated during the year by this auxiliary equipment. As mentioned on page 1, equipment which is not used primarily for the central electric station industry has been omitted from the current compilation.

TABLE 12 - ELECTRIC ENERGY GENERATED (Pages 34-35)

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plants of generating stations. The ratios indicate the relative position of the supply to the demand on a kilowatt.

hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. This changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly, especially up to 1937. After the outbreak of the war the supply of surplus power was greatly reduced and with war industries working twenty four hours per day, the supply of off-peak power was also considerably curtailed so that sales of secondary power showed a steady decrease up to the middle of 1943. However, they then began to increase and continued the upward trend throughout 1944, 1945 and 1946. Subsequent to August, 1946, declining amounts of secondary power were available and production, as reported monthly, dropped from 9,141,804,000 in 1946 to 6,233,861,000 kilowatt hours in 1947, and to a low of 2,610,308,000 in 1948.

#### TABLE 13 - FUEL (Pages 36-37)

Fuel used was principally domestic or local coal, oil and manufactured gas with stations in Nova Scotia and Saskatchewan the largest users. The value of Canadian bituminous and sub-bituminous coal was 50 p.c. of the total; lignite coal accounted for 8 per cent, fuel oil and diesel oil for 34 p.c., and gasoline, gas, etc., accounted for the remainder. Fuel consumed was valued at \$6,684,405 compared with \$5,585,206 in 1946. Coal cost an average of \$4.87 per ton as against \$4.34 one year earlier, while fuel and diesel oil was up from 6.8 cents to 7.74 cents a gallon.

#### DOMESTIC SERVICE

In the following table data on domestic customers are brought together and analysed. As might be expected the provinces with relatively high percentages of rural populations, Prince Edward Island, Saskatchewan and Alberta, show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of the use. Manitoba's low unit cost and high average consumption are influenced by flat rate water heaters and extensive use for cooking in Winnipeg; these induce high consumption per customer. There was also a large number of flat rate water heaters in Ontario. Further, where hydro-electric power is plentiful the rates are generally low and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and heavy

consumption by pulp and paper, aluminium and other electric metallurgical plants.

Domestic customers in Ontario consumed 57.8 per cent of the total power used by all domestic customers in Canada, whereas the population of this province was less than a third of the total for the Dominion.

The average bills do not include federal, provincial and municipal sales taxes paid by the consumers.

(1) DOMESTIC SERVICE  
1947

Province	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	P.C. of total Provincial Consumption	P.C. of Dominion Dom. Service Consumption
			\$	¢	Kw. hrs.	Kw.hrs.		
P. E. Island	7,372	7.84	50.16	5.35	938	74	33.94	0.2
Nova Scotia	96,231	15.50	30.38	3.11	978	152	15.25	2.1
New Brunswick	74,854	15.25	33.19	3.90	851	130	11.37	1.5
Quebec	631,597	17.02	24.00	2.19	1,096	187	3.42	15.8
Ontario	918,770	21.93	31.61	1.15	2,758	605	17.05	57.8
Manitoba	116,570	15.69	46.45	1.08	4,304	675	24.64	11.5
Saskatchewan	73,625	8.74	44.12	4.27	1,034	90	10.06	1.7
Alberta	100,134	12.18	34.68	3.93	882	108	13.66	2.0
B.C. & Yukon & N.W.T.	227,100	21.26	35.85	2.50	1,437	305	19.38	7.4
Canada	2,246,253	17.85	31.28	1.60	1,951	348	10.58	100.0

(1) Includes Farm Customers.



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TABLE 1 - COMPARATIVE SUMMARY, 1938-1947

PRINCIPAL DATA BY CLASS OF STATION	1947	1946	1945	1944	1943
<b>ELECTRIC POWER PLANTS</b>					
Total .....	607	600	600	595	622
Hydraulic .....	310	302	302	301	321
Fuel .....	247	255	236	206	201
Municipal .....	50	43	62	88	100
Generating .....	299	295	298	294	295
Non-generating .....	231	205	202	302	197
<b>CAPITAL</b>	Data not collected in 1944, 1945, 1946 and 1947				1,775,224,000
Total .....					1,140,225,110
Commercial .....					680,710,900
Municipal .....					1,134,674,871
Generating .....					197,000,199
Non-generating .....					
<b>REVENUE (1)</b>					
Total .....	238,929,627	226,096,273	215,105,473	215,246,391	204,801,508
Commercial .....	109,863,208	108,668,772	101,672,511	104,986,232	124,750,993
Municipal .....	129,066,419	117,427,501	113,432,962	110,260,159	80,070,515
Generating .....	209,127,860	192,214,412	185,227,685	185,574,224	175,217,757
Non-generating .....	29,801,767	33,881,861	31,877,786	29,672,167	29,583,751
<b>EXPENSES (2)</b>					
Total .....	182,136,045	(5) 156,708,176	135,104,091	131,299,947	135,555,469
Commercial .....	72,056,052	67,664,274	60,893,580	60,470,374	72,579,621
Municipal .....	110,079,993	89,045,902	74,210,511	70,819,573	62,975,848
Generating .....	127,491,214	100,708,844	83,536,610	79,913,496	81,500,674
Non-generating .....	54,644,831	55,999,332	51,767,481	51,376,451	54,034,791
<b>SALE LINE MILEAGE</b>					
Total .....	89,231	89,231	85,170	80,073	78,061
Commercial .....	33,194	33,194	31,117	30,377	32,085
Municipal .....	56,047	56,047	52,061	49,196	45,976
Generating .....	71,976	71,976	68,494	65,861	61,710
Non-generating .....	17,255	17,255	16,684	16,406	16,355
<b>CUSTOMERS</b>					
Total .....	2,643,527	2,476,869	2,353,230	2,258,023	(4) 2,164,861
Domestic service (3) .....	2,246,253	2,104,545	1,987,580	1,906,452	(4) 1,848,080
Commercial light .....	100,000	306,591	765,402	775,441	259,840
Power (small) .....	20,000	50,254	62,255	45,000	55,246
Power (large) .....	10,000	11,843	10,953	10,976	9,772
Power (municipal) .....	3,000	827	2,658	2,460	2,421
Street lighting .....	3,000	2,702	2,658	2,460	2,421
Commercial stations .....	370,419	826,081	766,864	755,239	(4) 1,000,815
Municipal stations .....	1,776,819	1,680,739	1,566,878	1,484,784	1,159,545
Generating stations .....	1,810,590	1,554,735	1,520,095	1,195,778	1,129,872
Non-generating stations .....	1,006,607	1,122,067	1,077,186	1,042,245	(4) 1,033,889
<b>SALE REVENUE (THOUSANDS)</b>					
Total .....	45,424,799	41,736,987	40,180,004	40,598,779	40,479,598
Commercial .....	27,665,524	26,997,716	25,330,237	25,688,580	21,002,299
Municipal .....	15,759,275	14,739,271	14,849,767	14,910,199	9,307,854
Exports to the United States .... (Thousands) ... Kw.h	2,066,487	2,481,631	2,545,455	2,555,511	2,545,038
Imports from the United States .. (Thousands) ... Kw.h	53,057	9,527	10,910	11,797	599
<b>EQUIPMENT IN GENERATING STATIONS (Main Plant only)</b>					
Total Primary Power .....	9,601,157	9,825,459	9,666,947	9,713,791	9,602,794
Total in commercial stations .....	5,956,125	6,501,996	6,294,121	6,375,525	7,009,858
Total in municipal stations .....	3,645,032	3,323,463	3,372,826	3,340,268	2,592,936
Total Secondary Power .....	7,984,438	8,162,824	8,036,761	8,075,884	7,981,427
Total in commercial stations .....	4,950,882	5,253,480	5,227,057	5,290,874	6,074,696
Total in municipal stations .....	3,033,556	2,909,344	2,809,704	2,785,010	1,906,731
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	184,930	176,255	173,512	185,117	184,822
Secondary power .....	154,139	149,462	146,556	157,866	168,910

(1) Cost of power interchanged between stations excluded from revenue of purchasing stations (see page 7).

(2) Includes wages, cost of power, fuel and taxes, but not other expenses.

(3) Farm service is included with domestic service.

(4) Revised in 1944 report.

(5) Revised.



TABLEAU 1 - SOMMAIRE COMPARATIF, 1958 - 1947

1942	1941	1940	1939	1938	DONNEES PRINCIPALES PAR CLASSES D'USINES
616 520 296 428 188	607 515 294 424 185	602 515 289 421 181	611 515 298 427 184	588 513 276 406 183	<b>USINES ELECTRIQUES</b> <u>Total</u> Hydrauliques A combustible Commerciales Municipales
1,747,891,798 1,127,978,832 809,913,668 1,888,888,888 168,796,410	1,841,880,401 1,054,714,025 898,748,426 1,439,900,540 181,359,311	1,815,480,180 1,049,806,104 885,733,138 1,440,087,870 178,111,870	1,864,406,811 1,014,704,068 849,808,188 1,598,858,081 187,761,250	1,888,416,132 1,002,881,482 847,877,107 1,577,700,708 188,110,818	<b>SAINT-LOUIS</b> <u>Total</u> Commerciales Municipales Non-génératrices
208,888,365 124,611,713 79,823,652 173,915,840 23,918,725	186,018,040 111,651,778 74,166,262 157,282,809 26,754,531	166,228,773 99,887,052 66,541,721 186,073,882 25,885,482	151,880,969 92,555,049 59,345,920 127,480,222 24,007,747	144,351,627 87,697,078 54,884,888 120,704,830 22,188,532	<b>RECETTES (1)</b> <u>Total</u> Commerciales Municipales Non-génératrices
152,581,419 71,133,882 61,448,056 80,171,588 52,409,832	117,758,977 60,561,621 57,187,558 68,128,513 48,610,484	105,044,158 51,990,180 53,048,098 60,788,781 44,791,007	91,982,572 42,471,534 49,510,088 41,470,137 40,411,235	87,564,540 41,087,388 48,288,748 48,416,489 86,417,918	<b>DEPENSES (2)</b> <u>Total</u> Commerciales Municipales Non-génératrices
77,909 51,847 46,062 61,927 15,982	77,254 51,442 45,811 61,495 15,758	75,050 50,828 44,117 59,676 15,374	72,112 50,888 41,844 57,084 15,048	66,877 29,555 37,622 52,373 14,604	<b>LIGNES SUR POTEAUX</b> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
2,125,504 1,805,708 264,706 44,815 9,673 2,404 985,059 1,140,245 1,105,539 1,021,765	2,081,270 1,755,917 268,977 44,071 9,934 2,371 954,906 1,126,864 1,079,253 1,008,074	2,008,508 1,686,588 285,178 45,172 9,490 2,314 985,093 1,068,415 1,032,438 982,072	1,941,663 1,622,878 297,500 43,888 9,267 2,180 984,418 1,062,848 998,067 941,898	1,873,621 1,558,394 240,883 41,595 10,152 2,123 959,806 1,014,118 954,797 919,824	<b>ABONNES</b> <u>Total</u> Service domestique (3) Éclairage commercial Force motrice (petite) Force motrice (grosse) Énergie (municipale) Éclairage des rues Usines commerciales Usines municipales Usines génératrices Usines non-génératrices
57,555,179 28,177,587 9,177,792 2,453,759 594	55,517,665 24,793,713 8,523,843 2,354,229 670	50,109,285 22,287,870 7,882,018 2,132,129 655	58,770,030 21,780,980 7,047,100 1,908,756 588	21,164,180 19,486,323 8,885,837 1,822,105 624	<b>ENERGIE ELECTRIQUE GENEREE</b> <u>Total</u> (en millions de kilowatts) Commerciales Municipales Exportations d'électricité aux Etats-Unis ..... (millions) Kw.h. Importations d'électricité des Etats-Unis ..... (millions) Kw.h.
8,613,696 6,269,386 2,344,510 7,258,927 5,368,769 1,880,158	8,157,585 5,917,160 2,240,455 6,851,795 5,054,727 1,797,058	7,135,887 5,708,984 2,227,218 6,681,211 4,808,288 1,788,043	7,807,127 5,585,848 2,237,487 6,475,418 4,854,745 1,780,871	7,476,976 5,400,181 2,375,723 6,877,058 4,288,278 1,741,585	<b>MACHINERIE DES USINES GENERATRICES</b> (valeur principale seulement) Total force motrice primaire ..... H. P. Total dans les usines commerciales ..... H. P. Total dans les usines municipales ..... H. P. Total force motrice secondaire ..... Kw.A. Total dans les usines commerciales ..... Kw.A. Total dans les usines municipales ..... Kw.A.
194,966 188,236	194,651 166,021	194,914 166,587	194,188 165,785	195,628 166,660	<b>OUTILLAGE D'USINES AUXILIAIRES</b> Force motrice primaire ..... H. P. Force motrice secondaire ..... Kw.A.

(1) Le coût de l'énergie échangée entre stations est calculé en fonction des stations en défaut à l'achat (Voir p. 7).

(2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

(3) L'éclairage des fermes est inclus dans l'éclairage domestique.

(4) Révisé en 1944.

(5) Révisé.



TABLE 2 - DOMESTIC SERVICE, 1938 - 1947

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	¢
<b>CANADA</b> .....						
1938	1,559,394	2,172,500	41,302,107	1,393	26.49	1.90
1939	1,623,672	2,311,301	43,793,482	1,423	26.97	1.90
1940	1,686,388	2,436,572	46,444,357	1,445	27.54	1.91
1941	1,755,917	2,582,405	48,683,162	1,471	27.73	1.89
1942	1,803,708	2,716,395	50,706,757	1,506	28.11	1.87
1943	1,882,307	2,883,612	51,307,781	1,535	27.70	1.80
1944	1,906,452	3,046,960	53,311,353	1,598	27.96	1.75
1945	1,987,360	3,365,497	55,735,696	1,693	28.05	1.66
1946	2,104,549	3,881,677	62,820,120	1,844	29.65	1.62
1947	2,246,253	4,383,222	70,258,591	1,951	31.28	1.60
Change (Changement) 1938- 1947						
Amount (Volume)	686,859	2,210,722	28,956,484	558	4.79	- .30
Per cent (p.c.)	44.05	101.76	70.11	40.06	18.08	- 15.79
<b>PRINCE EDWARD ISLAND</b> .....						
1938	4,799	2,579	150,994	537	31.46	5.85
1939	5,067	2,998	163,226	574	32.21	5.61
1940	5,227	3,076	172,643	588	33.03	5.61
1941	5,531	3,483	183,090	630	33.10	5.26
1942	5,606	3,590	196,446	639	35.04	5.49
1943	5,715	3,895	217,914	682	38.13	5.59
1944	6,103	4,579	230,596	750	37.78	5.04
1945	6,387	5,217	238,538	817	37.35	4.57
1946	6,882	6,017	274,082	874	39.93	4.56
1947	7,372	6,917	369,805	938	50.16	5.35
Change (Changement) 1938 - 1947						
Amount (Volume)	2,573	4,338	218,811	401	18.70	- 0.50
Per cent (p.c.)	53.62	168.30	144.91	74.87	59.44	- 8.55
<b>NOVA SCOTIA</b> .....						
1938	58,556	35,307	1,595,086	603	27.24	4.52
1939	62,734	39,084	1,709,507	630	27.56	4.37
1940	65,790	43,277	1,877,812	658	28.54	4.54
1941	69,397	48,357	2,065,057	691	29.50	4.27
1942	72,592	50,877	2,166,848	715	29.85	4.18
1943	75,957	57,324	2,156,852	755	28.40	3.76
1944	79,904	63,516	2,439,703	795	30.53	3.84
1945	84,711	70,099	2,286,358	834	27.21	3.26
1946	89,484	82,696	2,660,287	924	29.73	3.22
1947	96,231	94,135	2,923,631	978	30.38	3.11
Change (Changement) 1938 - 1947						
Amount (Volume)	37,675	58,828	1,328,545	375	3.14	- 1.41
Per cent (p.c.)	64.34	166.62	83.29	62.19	11.53	- 31.19
<b>NEW BRUNSWICK</b> .....						
1938	43,586	32,597	1,232,337	582	28.51	4.86
1939	46,485	36,889	1,307,772	581	28.13	4.85
1940	50,681	39,588	1,413,237	580	27.88	4.61
1941	52,831	31,254	1,435,013	591	27.16	4.59
1942	54,529	34,696	1,563,334	636	28.67	4.51
1943	56,239	35,294	1,661,550	628	29.54	4.71
1944	58,860	39,441	1,767,380	670	30.03	4.48
1945	62,175	45,958	1,883,374	739	30.29	4.10
1946	67,479	51,377	2,076,400	761	30.77	4.04
1947	74,854	63,728	2,494,545	851	33.19	3.90
Change (Changement) 1938 - 1947						
Amount (Volume)	31,298	38,361	1,251,608	269	4.88	- 0.96
Per cent (p.c.)	71.86	151.22	101.51	46.22	17.24	- 19.75
<b>QUEBEC</b> .....						
1938	421,178	287,107	8,669,034	682	20.58	3.02
1939	434,825	311,420	9,167,384	716	21.06	2.94
1940	451,791	324,032	9,634,398	717	21.32	2.97
1941	473,547	342,627	10,100,300	734	21.33	2.95
1942	488,014	368,173	10,788,687	734	22.10	2.93
1943	507,765	398,305	10,791,660	784	21.25	2.71
1944	530,306	446,142	11,304,901	841	21.31	2.53
1945	558,865	507,274	11,925,494	906	21.34	2.35
1946	590,125	596,693	13,401,463	1,011	22.71	2.25
1947	631,597	692,335	15,156,347	1,096	24.00	2.19
Change (Changement) 1938 - 1947						
Amount (Volume)	210,419	405,228	6,487,313	414	3.42	- 0.93
Per cent (p.c.)	49.96	141.14	74.83	60.70	16.32	- 27.48

TABLEAU 2 - SERVICE DOMESTIQUE, 1938 - 1947

Year Année	Number of Customers Nombre d'usagers	Kilowatt Hours Consumed Kilowatt heures consommées	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager	Average Annual Bill Compte moyen de l'année	Revenue per Kilowatt Hour Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	\$
<b>ONTARIO</b> .....						
1938	691,498	1,285,568	18,456,575	1,859	26.69	1.44
1939	719,871	1,374,325	19,657,658	1,909	27.31	1.43
1940	745,396	1,459,233	20,928,097	1,958	28.08	1.43
1941	772,153	1,546,189	21,300,081	2,002	28.47	1.42
1942	787,721	1,623,780	22,807,897	2,061	28.95	1.40
1943	801,430	1,682,562	23,000,644	2,099	28.70	1.37
1944	813,356	1,787,359	23,239,991	2,198	28.57	1.30
1945	839,968	1,963,043	23,699,446	2,337	28.21	1.21
1946	876,761	2,269,006	26,314,259	2,587	30.01	1.16
1947	918,770	2,533,594	29,046,165	2,756	31.61	1.15
Change (Changement) Amount (Volume) Per cent (p.c.)	1938 - 1947 227,272 32.87	1,248,026 97.08	10,589,590 57.36	899 48.36	4.92 18.43	- 0.29 - 20.14
<b>MANITOBA</b> .....						
1938	77,762	311,793	3,223,605	4,010	41.45	1.03
1939	81,091	320,827	3,311,662	3,956	40.84	1.03
1940	85,404	330,269	3,423,312	3,960	41.04	1.04
1941	85,106	343,041	3,472,277	4,031	40.80	1.01
1942	87,615	355,828	3,570,492	4,062	40.75	1.00
1943	88,528	374,169	3,712,551	4,226	41.93	.99
1944	92,073	389,865	3,871,419	4,234	42.05	.99
1945	94,673	416,499	4,237,484	4,399	44.76	1.02
1946	103,204	457,464	4,680,853	4,433	45.56	1.02
1947	116,570	501,744	5,414,994	4,304	46.45	1.06
Change (Changement) Amount (Volume) Per cent (p.c.)	1938 - 1947 38,808 49.91	189,951 60.92	2,191,389 67.99	294 7.33	5.00 12.06	+ 0.05 + 4.85
<b>SASKATCHEWAN</b> .....						
1938	48,060	39,077	1,903,731	813	39.61	4.87
1939	49,980	41,198	2,004,433	824	40.10	4.87
1940	51,425	43,406	2,093,205	844	40.70	4.82
1941	52,695	45,442	2,173,255	862	41.24	4.78
1942	54,132	46,858	2,173,896	866	40.16	4.64
1943	55,500	48,996	2,257,885	883	40.68	4.61
1944	58,089	52,724	2,397,702	908	41.28	4.55
1945	61,285	58,402	2,565,796	953	41.87	4.39
1946	67,336	68,560	2,940,165	1,018	43.66	4.29
1947	73,625	76,152	3,248,282	1,034	44.12	4.27
Change (Changement) Amount (Volume) Per cent (p.c.)	1938 - 1947 25,565 53.19	37,075 94.68	1,344,551 70.63	221 27.18	4.51 11.39	- 0.60 - 12.32
<b>ALBERTA</b> .....						
1938	63,030	38,089	1,983,226	604	31.46	5.21
1939	68,267	42,210	2,145,093	619	31.42	5.08
1940	69,397	45,110	2,275,091	660	32.78	5.04
1941	72,422	47,572	2,393,189	657	33.05	5.02
1942	74,814	49,089	2,393,073	656	31.99	4.87
1943	77,810	52,100	2,514,031	670	32.31	4.83
1944	81,652	56,977	2,698,155	698	33.04	4.74
1945	87,005	63,962	2,932,410	735	33.70	4.59
1946	92,461	75,756	3,166,731	819	34.25	4.18
1947	100,134	88,366	3,472,789	882	34.68	3.93
Change (Changement) Amount (Volume) Per cent (p.c.)	1938 - 1947 37,104 58.87	50,277 132.00	1,489,563 75.11	276 46.03	3.22 10.24	- 1.28 - 24.57
<b>BRITISH COLUMBIA</b> .....						
1938	150,955	147,613	4,086,919	970	27.07	2.77
1939	156,052	151,930	4,326,747	974	27.73	2.65
1940	163,277	158,781	4,626,582	972	28.34	2.91
1941	171,635	174,454	4,880,948	1,012	28.44	2.80
1942	178,685	182,914	5,049,084	1,024	28.26	2.76
1943	179,136	190,967	4,994,894	1,068	27.88	2.62
1944	186,019	206,377	5,361,506	1,109	28.82	2.60
1945	192,991	235,043	5,966,796	1,216	30.92	2.54
1946	210,817	274,138	7,305,880	1,300	34.66	2.67
1947	227,100	326,251	8,142,033	1,437	35.85	2.50
Change (Changement) Amount (Volume) Per cent (p.c.)	1938 - 1947 76,145 50.44	178,638 121.02	4,055,114 99.22	459 46.93	8.78 32.43	- 0.27 - 9.75



TABLE 3 - ELECTRIC POWER PLANTS, 1947

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total number of generating stations</u> .....	607	9	45	14
Per cent of total for Canada .....	100.00	1.48	7.41	2.31
<u>COMMERCIAL</u> .....	377	8	18	7
Hydraulic .....	182	4	11	5
Fuel .....	195	4	7	2
<u>MUNICIPAL</u> .....	230	1	27	7
Hydraulic .....	128	-	21	3
Fuel .....	102	1	6	4
With water wheels and turbines .....	310	4	32	8
With steam engines only .....	17	-	-	1
With steam turbines only .....	32	1	6	1
With gas or oil engines only .....	243	4	5	3
With both steam engines and turbines .....	3	-	1	1
With both steam and gas or oil engines .....	2	-	1	-
With alternating current dynamos only .....	489	9	45	13
With direct current dynamos only .....	106	-	-	1
With both alternating and direct current dynamos	12	-	-	-
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 371	6	16	17
Number generating power .....	252	5	10	7
Number buying power for redistribution .....	119	1	6	10
<u>MUNICIPALITIES</u> .....	X 467	1	21	10
Number generating power .....	73	1	7	2
Number buying power for redistribution .....	394	-	14	8
<u>AUXILIARY PLANTS</u> .....	56	1	3	6
To hydraulic stations .....	44	1	1	1
To non-generating stations .....	12	-	2	5

X - Organizations operating in two or more provinces are shown under provinces, but are includes in total as only one organization.

/ - One hydraulic station, formerly with Manitoba, now shown in Saskatchewan.



TABLEAU 3 - USINES GENERATRICES, 1947

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
95	120	14	134	95	81	<u>Nombre d'usines génératrices</u>
15.65	19.77	2.31	22.08	15.65	13.34	Pourcentage du total pour le Canada
73	45	8	80	85	53	<u>COMMERCIALES</u>
71	42	3	1	13	32	Hydrauliques
2	3	5	79	72	21	A combustible
22	75	6	54	10	28	<u>MUNICIPALES</u>
20	68	3	-	-	13	Hydrauliques
2	7	3	54	10	15	A combustible
91	110	6	1	13	45	Avec roues et turbines hydrauliques
1	3	1	-	7	4	Avec machines à vapeur seulement
1	-	-	6	10	7	Avec turbines à vapeur seulement
2	7	7	126	65	24	Avec moteurs à gaz ou à pétrole seulement
-	-	-	1	-	-	Avec machines et turbines à vapeur à la fois
-	-	-	-	-	1	Avec machines à vapeur à gaz et à pétrole
94	118	14	61	62	73	Avec dynamos à courant alternatif seulement
1	2	-	71	26	5	Avec dynamos à courant direct seulement
-	-	-	2	7	3	Avec dynamos à courant alternatif et direct
61	64	12	81	69	58	<u>USINES COMMERCIALES</u>
29	31	6	79	54	40	Nombre d'usines génératrices
32	33	6	2	15	18	Nombre d'usines achetant de l'électricité pour la revendre
36	330	8	30	16	19	<u>MUNICIPALITES</u>
13	12	4	22	9	7	Nombre d'usines génératrices
23	318	4	8	7	12	Nombre d'usines achetant de l'électricité pour la revendre
10	7	3	-	8	18	<u>USINES AUXILIAIRES</u>
9	6	1	-	8	17	Aux usines hydrauliques
1	1	2	-	-	1	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.

/ - Une station hydraulique préalablement mentionnée sous le titre Manitoba se trouve maintenant sous celui de Saskatchewan.

TABLE 4 - REVENUE, 1947

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	238,929,627	651,354	8,972,494	4 6,268,278	4 95,904,872
For domestic service .....	70,258,591	369,805	2,923,631	2,484,545	15,156,347
For commercial light .....	40,789,520	141,466	1,700,858	1,134,193	10,600,629
For power (small) .....	12,014,540	41,997	1,049,757	486,165	2,806,539
For power (large) .....	106,636,652	28,762	3,019,006	1,966,794	65,006,496
For power (municipal) .....	3,863,020	52,930	62,290	29,962	879,794
For street lighting .....	5,367,304	16,394	216,972	166,621	1,254,867
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	109,863,208	499,332	6,287,255	3,050,582	63,764,036
Non-generating .....	2,906,067	899	729,351	514,670	227,809
Generating .....	106,957,141	498,433	5,557,904	2,535,912	63,536,227
Hydraulic .....	98,157,704	23,396	1,266,695	1,721,455	63,489,254
Fuel .....	8,799,437	475,037	4,291,209	814,457	46,975
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	129,066,419	152,022	2,685,239	3,217,696	30,140,636
Non-generating .....	26,895,700	-	353,916	691,188	859,958
Generating .....	102,170,719	152,022	2,331,323	2,526,508	29,280,678
Hydraulic .....	89,064,625	-	1,824,813	145,714	29,255,694
Fuel .....	13,106,094	152,022	506,510	2,380,794	24,984
Revenue of non-generating stations .....	29,801,767	899	1,083,267	1,205,858	1,087,767
Revenue of generating stations .....	209,127,860	650,455	7,889,227	5,062,420	92,816,905
Revenue of hydraulic stations .....	187,222,329	23,396	3,091,508	1,867,169	92,744,948
Revenue of fuel stations .....	21,905,551	627,059	4,797,719	3,195,251	71,957
Average revenue per H.P. of primary power .....	24.89	70.04	43.83	38.68	17.31
Average revenue per H.P. in main and auxiliary plants ....	24.42	69.04	43.40	37.54	17.11
Average revenue per Kv.A. of dynamo capacity .....	29.92	93.09	52.57	45.30	20.41
Average revenue per Kv.A. in main and auxiliary plants ...	29.36	92.46	52.07	44.10	20.21
Average revenue per domestic service customer .....	31.28	50.16	30.38	33.19	24.01
Average revenue per commercial light customer .....	124.74	98.79	122.61	138.76	124.01
Average revenue per small power customer .....	224.14	285.69	355.49	327.16	221.41
Average revenue per large power customer .....	8,314.75	5,752.40	12,792.40	13,025.13	33,266.31
Average revenue per kilowatt hour consumed ..... Cents	0.58	3.20	1.45	1.12	0.41
Average revenue per kilowatt hour - domestic and farm service .. Cents	1.60	5.35	3.11	3.90	2.11
Average revenue per kilowatt hour - commercial light "	1.98	4.11	3.53	2.88	2.01

4 Affected by power purchased from other province.

X Adjusted for power purchased from Quebec plants.

Ø Gross revenue less cost of power interchanged between stations.



TABLEAU 4 - RECETTES, 1947 \$

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
94,740,546	12,826,085	9,521,582	10,672,911	17,099,556	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
29,046,165	5,414,994	5,248,282	5,472,789	8,142,053	Pour éclairage domestique
12,668,485	2,875,794	2,569,624	2,947,420	6,151,071	Pour éclairage commercial
5,514,849	625,554	1,082,737	1,181,142	1,227,822	Pour force motrice (petite)
44,951,500	5,450,918	2,107,999	2,577,656	1,075,192	Pour force motrice (grosse)
2,241,075	178,517	187,291	182,612	48,751	Pour pouvoir municipal
2,558,474	282,528	525,649	511,512	454,487	Pour éclairage des rues
11,909,611	6,067,461	1,850,297	5,553,582	13,902,248	<u>RECETTES DES USINES COMMERCIALES</u>
2,674,049	585,997	2,813	140,355	196,918	Non-génératrices
9,235,562	5,681,464	1,847,484	5,395,027	13,705,330	Génératrices
9,195,724	5,557,582	756,722	5,907,652	15,295,426	Hydrauliques
41,858	125,882	1,110,762	1,485,575	409,904	A combustible
82,850,755	6,758,624	7,471,285	5,139,529	5,197,108	<u>RECETTES DES USINES MUNICIPALES</u>
18,699,517	2,426,174	1,105,161	1,861,918	957,444	Non-génératrices
64,151,218	4,332,450	6,566,124	3,277,611	2,239,664	Génératrices
64,019,022	4,245,798	-	-	2,040,465	Hydrauliques
112,196	86,652	6,566,124	3,277,611	199,201	A combustible
21,575,566	2,812,171	1,107,974	2,002,275	1,154,562	Recettes des usines non-génératrices
75,566,780	10,015,914	8,215,608	8,670,658	15,944,994	Recettes des usines génératrices
75,212,746	9,805,380	756,722	5,907,652	15,355,889	Recettes des usines hydrauliques
154,054	210,554	7,476,886	4,762,986	609,105	Recettes des usines à combustible
X 25.82	28.86	35.36	50.44	37.69	Moyenne de recettes par H.P. de machinerie primaire
X 25.51	27.64	35.36	46.29	35.87	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
X 35.11	55.92	42.05	60.35	44.93	Moyenne de recettes par Kv.A. de capacité de dynamos
X 32.69	54.19	42.05	55.14	40.82	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
51.61	46.45	44.12	54.68	35.85	Moyenne de recettes par abonnés d'éclairage domestique
108.93	128.22	122.56	151.41	171.16	Moyenne de recettes par abonnés d'éclairage commercial
226.75	159.15	517.24	165.01	215.26	Moyenne de recettes par abonnés pour petite force motrice
11,722.25	767.21	4,602.62	5,580.05	1,045.88	Moyenne de recettes par abonnés pour grosse force motrice
0.64	0.63	1.25	1.65	1.02	Moyenne de recettes par Kw. heure ..... (cents)
1.15	1.08	4.27	3.93	2.50	Moyenne de recettes par Kw. heure-service domestique et de ferme ..... (cents)
1.51	1.92	4.55	3.82	3.02	Moyenne de recettes par Kw. heure - service commercial .... (cents)

/ Affecté par énergie achetée d'une autre province.

X Adjusté pour achats de courant des usines du Québec.

\$ Revenu brut moins le coût de l'énergie échangée entre stations.



TABLE 5 - <sup>1</sup> EXPENSES, 1947

	Canada	Prince Edward Island	Nova Scôtia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>TOTAL EXPENSE</u> .....	182,136,045	477,860	8,563,640	4,558,479	48,128,323
Per cent of total for Canada .....	100.00	0.26	4.70	2.50	26.43
Salaries and wages .....	67,417,517	194,913	2,734,026	1,676,622	15,138,979
Fuel .....	6,684,405	256,769	1,779,846	1,130,228	38,920
Taxes (x) .....	26,218,543	25,218	1,059,845	237,508	17,541,443
Cost of power .....	81,815,780	960	2,989,923	1,514,121	15,408,981
<u>TOTAL FOR COMMERCIAL STATIONS</u> .....	72,056,052	419,812	6,619,885	1,926,181	33,974,546
Salaries and wages .....	23,071,390	168,863	2,007,113	566,569	11,180,552
Fuel .....	3,549,009	224,771	1,648,600	355,868	25,411
Taxes (x) .....	20,022,464	25,218	981,528	182,150	13,063,800
Cost of power .....	25,413,189	960	1,982,644	841,594	9,704,783
Non-generating stations .....	5,679,475	1,050	1,031,523	1,057,885	239,553
Generating stations .....	66,376,577	418,762	5,588,362	868,296	33,734,993
Hydraulic stations .....	58,644,656	15,526	700,881	272,098	33,705,160
Fuel stations .....	7,731,921	403,236	4,887,481	596,198	29,833
<u>TOTAL FOR MUNICIPAL STATIONS</u> .....	110,079,993	58,048	1,943,755	2,632,298	14,153,777
Salaries and wages .....	44,345,927	26,050	726,913	1,110,053	3,958,427
Fuel .....	3,135,396	31,998	131,246	794,560	13,509
Taxes (x) .....	6,196,079	-	78,317	55,358	4,477,643
Cost of power .....	56,402,591	-	1,007,279	672,527	5,704,198
Non-generating stations .....	48,965,356	-	1,082,964	735,165	803,502
Generating stations .....	61,114,637	58,048	860,791	1,897,133	13,350,275
Hydraulic stations .....	54,833,361	-	495,085	127,597	13,338,398
Fuel stations .....	6,281,276	58,048	365,706	1,769,536	11,877
<u>TOTAL EXPENSES FOR NON-GENERATING STATIONS</u> .....	54,644,831	1,050	2,114,487	1,793,050	1,043,055
Salaries and wages .....	12,007,766	90	530,675	586,382	321,707
Fuel .....	10,140	-	108	7,371	-
Taxes (x) .....	882,772	-	151,291	56,119	8,240
Cost of power .....	41,744,153	960	1,432,413	1,343,178	713,108
<u>TOTAL EXPENSES FOR GENERATING STATIONS</u> .....	127,491,214	476,810	6,449,153	2,765,429	47,085,268
Salaries and wages .....	55,409,551	194,823	2,203,351	1,290,240	14,817,272
Fuel .....	6,674,265	256,769	1,779,738	1,122,857	38,920
Taxes (x) .....	25,335,771	25,218	908,554	181,389	17,533,203
Cost of power .....	40,071,627	-	1,557,510	170,943	14,695,873
Hydraulic stations .....	113,478,017	15,526	1,195,966	399,695	47,043,558
Fuel stations .....	14,013,197	461,284	5,253,187	2,365,734	41,710

(x) Sales tax not included (see page 8).

<sup>1</sup> Includes only the four items listed.

TABLEAU 5 - / DEPENSES, 1947

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
87,950,430	5,079,376	4,627,127	5,577,099	17,173,711	<u>TOTAL DES DEPENSES</u>
48.29	2.79	2.54	3.06	9.45	Pourcentage du total pour le Canada
34,077,059	3,683,286	1,807,709	2,145,647	5,959,076	Salaires et gages
65,528	69,542	1,610,546	922,091	810,935	Combustible
2,950,597	287,144	192,629	1,051,229	2,872,930	Taxes (x)
50,857,246	1,059,404	1,016,243	1,458,132	7,530,770	Achat d'énergie électrique
9,040,048	1,777,333	889,583	2,657,749	14,750,915	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,771,395	1,009,992	476,765	1,225,443	4,664,698	Salaires et gages
15,905	24,298	290,813	368,573	614,770	Combustible
1,868,601	156,476	118,034	796,182	2,830,475	Taxes (x)
5,384,147	586,567	3,971	267,551	6,640,972	Achat d'énergie électrique
2,591,344	625,432	4,710	72,114	255,864	Usines non-génératrices
6,848,704	1,151,901	884,873	2,585,635	14,495,051	Usines génératrices
6,631,555	1,089,388	324,392	1,656,936	14,248,720	Usines hydrauliques
17,149	62,513	560,481	928,699	246,331	Usines à combustible
78,910,382	3,302,043	3,737,544	2,919,350	2,422,796	<u>TOTAL POUR LES USINES MUNICIPALES</u>
32,305,664	2,673,294	1,330,944	920,204	1,294,378	Salaires et gages
49,623	45,244	1,319,733	553,518	196,165	Combustible
1,081,996	130,668	74,595	255,047	42,455	Taxes (x)
45,473,099	452,837	1,012,272	1,190,581	889,798	Achat d'énergie électrique
41,362,042	1,518,551	1,067,404	1,678,453	717,275	Usines non-génératrices
37,548,340	1,783,492	2,670,140	1,240,897	1,705,521	Usines génératrices
37,499,679	1,743,423	-	-	1,629,179	Usines hydrauliques
48,661	40,069	2,370,140	1,240,897	76,342	Usines à combustible
43,753,386	2,143,983	1,072,114	1,750,567	973,139	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
8,923,227	1,083,573	141,180	382,751	238,181	Salaires et gages
2,661	-	-	-	-	Combustible
422,718	23,835	74,579	126,200	19,790	Taxes (x)
34,404,780	1,036,575	856,355	1,241,616	715,168	Achat d'énergie électrique
14,197,044	2,935,393	3,555,013	3,826,532	16,200,572	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
15,153,832	2,599,713	1,666,529	1,762,896	5,720,895	Salaires et gages
62,867	69,542	1,610,546	922,091	810,935	Combustible
2,527,879	263,309	118,050	925,029	2,853,140	Taxes (x)
6,452,466	2,829	159,888	216,516	6,815,602	Achat d'énergie électrique
1,151,234	2,832,811	324,392	1,656,936	15,877,899	Usines hydrauliques
65,810	102,582	3,230,621	2,169,596	322,673	Usines à combustible

/ Ne comprend que les quatres items énumérés.

(x) Taxe des ventes non comprises (Voir p. 8).

TABLE 6 - EMPLOYEES, 1947

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	26,704	127	1,440	864	7,101
Per cent of total for Canada .....	100.00	0.48	5.39	3.24	26.59
Officers, clerks, other salaried employees, etc.	8,526	32	554	202	1,984
Employees on wages .....	18,178	95	886	662	5,117
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	10,570	106	957	346	5,336
Officers, clerks, other salaried employees, etc.	2,997	26	324	100	1,220
Employees on wages .....	7,573	80	633	246	4,116
Non-generating .....	540	-	181	138	65
Generating .....	10,030	106	776	208	5,271
Hydraulic .....	8,940	7	260	93	5,260
Fuel .....	1,090	99	516	115	11
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	16,134	21	483	518	1,765
Officers, clerks, other salaried employees, etc.	5,529	6	230	102	764
Employees on wages .....	10,605	15	253	416	1,001
Non-generating .....	5,723	-	125	96	145
Generating .....	10,411	21	358	422	1,620
Hydraulic .....	9,076	-	254	48	1,616
Fuel .....	1,335	21	104	374	4
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	6,263	-	306	234	210
Officers, clerks, other salaried employees, etc. .	2,431	-	101	97	67
Employees on wages .....	3,832	-	205	137	143
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	20,441	127	1,134	630	6,891
Officers, clerks, other salaried employees, etc.	6,095	32	453	105	1,917
Employees on wages .....	14,346	95	681	525	4,974
Hydraulic .....	18,016	7	514	141	6,876
Fuel .....	2,425	120	620	489	15



TABLEAU 6 - EMPLOYÉS, 1947

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
10,987	2,001	815	958	2,411	<u>TOTAL DU PERSONNEL OCCUPE</u>
41.14	7.49	3.05	3.59	9.03	Pourcentage du total pour le Canada
3,765	608	223	329	829	Administrateurs, directeurs, commis et tous employés des bureaux
7,222	1,393	592	629	1,582	Ouvriers et journaliers
785	486	209	527	1,818	<u>PERSONNEL DES USINES COMMERCIALES</u>
208	188	78	176	677	Administrateurs, directeurs, commis et tous employés des bureaux
577	298	131	351	1,141	Ouvriers et journaliers
94	10	2	11	39	Non-génératrices
691	476	207	516	1,779	Génératrices
688	456	121	328	1,727	Hydrauliques
3	20	86	188	52	Combustible
10,202	1,515	606	431	593	<u>PERSONNEL DES USINES MUNICIPALES</u>
3,557	420	145	153	152	Administrateurs, directeurs, commis et tous employés des bureaux
6,645	1,095	461	278	441	Ouvriers et journaliers
4,261	761	70	183	82	Non-génératrices
5,941	754	536	248	511	Génératrices
5,928	741	-	-	489	Hydrauliques
13	13	536	248	22	Combustible
4,355	771	72	194	121	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,808	180	35	97	46	Administrateurs, directeurs, commis et tous employés des bureaux
2,547	591	37	97	75	Ouvriers et journaliers
6,632	1,230	743	764	2,290	<u>PERSONNEL DES USINES GENERATRICES</u>
1,957	428	188	232	783	Administrateurs, directeurs, commis et tous employés des bureaux
4,675	802	555	532	1,507	Ouvriers et journaliers
6,616	1,197	121	328	2,216	Hydrauliques
16	33	622	436	74	Combustible

TABLE 7 - NUMBER OF CUSTOMERS, 1947

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>NUMBER OF CUSTOMERS</b> .....	2,645,527	8,985	115,407	84,791	734,353
Per cent of total for Canada .....	100.00	0.34	4.39	3.21	27.78
Domestic service .....	2,246,253	7,372	90,251	74,854	631,597
Commercial light .....	326,986	1,452	15,873	8,174	27,046
Power (small) .....	25,004	147	2,955	1,408	12,675
Power (large) .....	17,083	5	130	161	1,784
Power (municipal) .....	330	14	12	8	170
Street lighting .....	7,010	16	20	31	974
<b>COMMERCIAL STATIONS</b> .....	899,445	7,305	74,007	39,034	567,217
Domestic service .....	753,257	5,969	63,479	28,180	510,787
Commercial light .....	111,471	1,126	9,229	1,054	41,478
Power (small) .....	18,426	99	2,095	872	8,016
Power (large) .....	4,428	4	110	30	1,574
Power (municipal) .....	610	18	5	4	112
Street lighting .....	1,403	14	40	13	510
<b>Non-generating</b> .....	86,082	55	28,841	17,705	7,304
Generating .....	784,326	7,252	45,046	12,179	359,573
Hydraulic .....	697,448	495	14,601	3,370	247,294
Fuel .....	86,878	6,757	30,745	8,000	806
<b>MUNICIPAL STATIONS</b> .....	1,772,919	1,880	30,515	34,001	267,076
Domestic service .....	1,512,996	1,403	40,012	43,724	314,630
Commercial light .....	215,517	226	4,560	4,110	45,367
Power (small) .....	35,178	46	600	715	6,055
Power (large) .....	7,570	1	135	41	420
Power (municipal) .....	500	1	7	3	46
Street lighting .....	1,531	1	30	32	36
Non-generating .....	940,725	-	15,435	17,841	23,567
Generating .....	832,194	1,660	15,080	36,010	434,709
Hydraulic .....	671,848	-	11,782	2,578	356,321
Fuel .....	160,346	1,680	6,077	34,132	586
<b>NON-GENERATING STATIONS</b> .....	1,026,807	53	11,297	35,546	35,671
Domestic service .....	874,361	55	29,000	30,015	31,875
Commercial light .....	126,815	17	5,100	4,108	3,593
Power (small) .....	20,912	-	1,011	685	657
Power (large) .....	5,453	-	57	31	75
Power (municipal) .....	481	-	7	7	19
Street lighting .....	741	1	30	30	34
<b>GENERATING STATIONS</b> .....	1,616,520	8,332	46,116	49,146	696,682
<b>Hydraulic stations</b> .....	1,369,296	495	26,000	5,146	397,305
Domestic service .....	1,175,426	390	21,320	7,170	595,696
Commercial light .....	159,392	102	5,061	905	65,217
Power (small) .....	24,402	8	342	125	12,111
Power (large) .....	6,413	-	91	33	1,614
Power (municipal) .....	700	-	5	2	131
Street lighting .....	1,403	1	40	2	610
<b>Fuel stations</b> .....	247,224	1,227	41,521	43,941	1,077
Domestic service .....	196,466	6347	34,399	30,060	823
Commercial .....	40,781	1,313	5,071	3,103	235
Power (small) .....	8,290	145	1,500	600	5
Power (large) .....	624	5	30	21	5
Power (municipal) .....	104	14	2	-	-
Street lighting .....	200	13	22	33	4
Average number of domestic service customers per 100 of population .....	17.80	7.84	15.80	10.20	17.02



TABLEAU 7 - NOMBRE D'USAGERS, 1947

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	
1,055,474	148,258	87,273	180,954	269,915	<u>NOMBRE D'USAGERS</u>
59.95	5.81	5.08	4.95	10.21	Pourcentage du total pour le Canada
918,770	116,570	75,925	100,134	227,100	Service domestique
118,304	22,439	19,562	21,465	35,958	Eclairage commercial
15,901	4,461	5,413	7,246	5,703	Force motrice (petite)
3,835	4,458	458	740	1,050	Force motrice (grosse)
403	8	19	180	24	Energie (municipale)
586	275	351	595	113	Eclairage des rues
71,546	47,911	71,325	46,077	215,412	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
61,466	54,244	8,342	34,007	182,287	Service domestique
5,570	6,752	1,075	10,080	28,148	Eclairage commercial
890	574	531	5,046	4,026	Force motrice (petite)
300	1,250	19	534	866	Force motrice (grosse)
3	1	3	140	14	Energie (municipale)
68	21	90	301	71	Eclairage des rues
18,055	10,052	161	1,804	5,058	Non-génératrices
55,293	35,862	11,340	45,779	110,394	Génératrices
54,665	32,105	8	43,410	108,006	Hydrauliques
648	1,757	21,342	23,170	8,401	Combustibles
984,126	104,344	85,744	82,282	24,201	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
857,234	82,306	64,425	65,350	88,018	Service domestique
107,762	15,666	17,391	12,338	7,170	Eclairage commercial
14,615	3,207	5,132	4,200	1,875	Force motrice (petite)
3,455	2,204	439	566	154	Force motrice (grosse)
421	3	17	10	16	Energie (municipale)
562	252	312	14	40	Eclairage des rues
751,957	44,306	19,698	57,840	25,478	Non-génératrices
252,169	60,136	66,145	41,343	51,622	Génératrices
230,591	58,958	-	-	29,006	Hydrauliques
1,578	1,185	88,148	44,382	1,000	Combustible
768,012	54,266	10,780	40,185	20,000	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
658,864	47,255	15,694	32,045	20,010	Service domestique
92,273	9,971	7,103	4,009	3,448	Eclairage commercial
13,364	1,507	977	2,100	652	Force motrice (petite)
2,755	270	27	187	112	Force motrice (grosse)
420	3	5	7	17	Energie (municipale)
536	252	12	15	21	Eclairage des rues
287,452	94,000	77,493	40,721	241,906	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
285,253	91,058	4	25,610	256,526	<u>Usines hydrauliques</u>
258,059	72,175	-	15,216	199,189	Service domestique
23,751	11,856	-	4,151	31,420	Eclairage commercial
2,034	2,812	-	1,826	4,250	Force motrice (petite)
1,097	4,223	6	232	521	Force motrice (grosse)
3	2	-	27	5	Energie (municipale)
298	11	-	116	71	Eclairage des rues
2,206	2,942	77,487	63,132	6,240	<u>Usines à combustible</u>
1,347	2,740	57,071	46,075	1,301	Service domestique
270	622	10,253	11,325	200	Eclairage commercial
85	162	2,428	5,250	151	Force motrice (petite)
1	5	425	780	8	Force motrice (grosse)
1	1	12	116	1	Energie (municipale)
4	12	500	124	19	Eclairage des rues
21.93	15.69	1.74	12.18	11.36	Moyenne de consommateurs d'éclairage électrique par 100 habitants



TABLE 8 - POLE LINE MILEAGE, 1947

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
POLE LINE MILEAGE .....	98,530	458	5,836	4,354	19,856
Per cent of total for Canada .....	100.00	0.46	5.92	4.40	20.15
Miles of steel towers .....	5,730	-	21	243	1,452
Miles of steel poles .....	293	-	2	-	214
Miles of wooden poles .....	89,864	455	5,801	4,090	17,426
Miles of concrete poles .....	514	-	-	1	-
Miles of underground and submarine cables .....	2,129	5	12	-	764
<b>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</b> .....	35,891	389	2,889	816	16,724
Non-generating .....	2,358	8	612	238	477
Generating .....	33,533	381	2,277	578	16,247
Hydraulic .....	30,157	26	1,361	377	16,254
Fuel .....	3,376	355	916	201	13
<b>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</b> .....	62,639	69	2,947	3,518	3,132
Non-generating .....	16,411	-	566	228	318
Generating .....	46,228	69	2,381	3,290	2,814
Hydraulic .....	37,901	-	1,764	40	2,802
Fuel .....	8,327	69	617	3,250	12
<b>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</b> .....	18,769	8	1,178	466	795
<b>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</b> .....	79,761	450	4,658	3,868	19,061
Hydraulic .....	68,058	26	3,125	417	19,056
Fuel .....	11,703	424	1,533	3,451	25

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1947

<b>TOTAL PRIMARY POWER</b> .....	H.P.	184,930	135	2,025	4,885	42,908
Per cent of total for Canada .....		100.00	0.07	1.10	2.64	25.20
Steam reciprocating engines .....	No.	12	1	3	-	-
Total capacity .....	H.P.	5,768	75	1,190	-	-
Steam turbines .....	No.	41	-	1	3	8
Total capacity .....	H.P.	159,517	-	670	1,925	36,224
Gas and oil engines .....	No.	45	1	1	5	10
Total capacity .....	H.P.	19,645	60	165	2,960	6,684
<b>TOTAL SECONDARY POWER</b> .....	Kv.A.	154,199	48	1,638	3,761	38,588
<b>COMMERCIAL STATIONS</b>						
<b>TOTAL PRIMARY POWER</b> .....	H.P.	89,129	135	2,025	2,525	8,192
Steam reciprocating engines .....	No.	11	1	3	-	-
Total capacity .....	H.P.	4,018	75	1,190	-	-
Steam turbines .....	No.	25	-	1	3	3
Total capacity .....	H.P.	75,875	-	670	1,925	3,500
Gas and oil engines .....	No.	24	1	1	2	5
Total capacity .....	H.P.	9,236	60	165	600	4,692
<b>TOTAL SECONDARY POWER</b> .....	Kv.A.	72,861	48	1,638	1,735	6,719
<b>MUNICIPAL STATIONS</b>						
<b>TOTAL PRIMARY POWER</b> .....	H.P.	95,801	-	-	2,360	34,716
Steam reciprocating engines .....	No.	1	-	-	-	-
Total capacity .....	H.P.	1,750	-	-	-	-
Steam turbines .....	No.	16	-	-	-	5
Total capacity .....	H.P.	83,642	-	-	-	32,724
Gas and oil engines .....	No.	21	-	-	3	5
Total capacity .....	H.P.	10,409	-	-	2,360	1,992
<b>TOTAL SECONDARY POWER</b> .....	Kv.A.	81,338	-	-	2,026	31,669

TABLEAU 8 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1947

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
41,851	8,262	4,353	6,271	7,309	<u>LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX</u>
42.48	8.39	4.42	6.36	7.42	Pourcentage du total pour tout le Canada
3,086	688	59	51	150	Milles de pylones d'acier
74	3	-	-	-	Milles de poteaux d'acier
37,123	7,521	4,269	6,150	7,029	Milles de poteaux de bois
512	1	-	-	-	Milles de poteaux de ciment
1,056	49	25	90	130	Milles de cables souterrains et sous-marins
2,198	1,361	368	5,241	5,905	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
427	204	4	71	517	Non-génératrices
1,771	1,157	364	5,170	5,588	Génératrices
1,763	1,082	59	3,774	5,481	Hydrauliques
8	75	305	1,896	107	A combustible
39,653	6,901	3,985	1,050	1,404	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
8,200	5,979	212	522	586	Non-génératrices
31,453	922	3,773	508	1,018	Génératrices
31,422	904	-	-	969	Hydrauliques
31	18	3,773	508	49	A combustible
8,627	6,183	216	593	703	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
33,224	2,079	4,137	5,678	6,606	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GENERATRICES</u>
33,185	1,986	59	3,774	6,450	Hydrauliques
39	93	4,078	1,904	156	A combustible

TABLEAU 9 - OUTILLAGE AUXILIAIRE, 1947

45,260	19,490	-	18,963	51,264	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
24.47	10.54	-	10.26	27.72	Pourcentage du total pour tout le Canada
-	1	-	7	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	1,750	-	2,753	-	Capacité totale ..... H.P.
5	6	-	4	11	Turbines à vapeur ..... Nomb.
42,020	17,740	-	15,000	45,958	Capacité totale ..... H.P.
4	-	-	7	17	Moteurs à gaz et à pétrole ..... Nomb.
3,240	-	-	1,210	5,326	Capacité totale ..... H.P.
37,344	18,026	-	16,662	58,332	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
14,160	-	-	18,963	42,123	<u>USINES COMMERCIALES</u>
-	-	-	7	-	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
-	-	-	2,753	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
3	-	-	4	11	Capacité totale ..... H.P.
12,520	-	-	15,000	42,260	Turbines à vapeur ..... Nomb.
3	-	-	7	17	Capacité totale ..... H.P.
1,640	-	-	1,210	269	Moteurs à gaz et à pétrole ..... Nomb.
11,094	-	-	16,662	34,367	Capacité totale ..... H.P.
31,100	19,490	-	-	3,135	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
-	1	-	-	-	<u>USINES MUNICIPALES</u>
-	1,750	-	-	-	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
2	6	-	-	3	Machines à vapeur, à mouvement alternatif ..... Nomb.
29,500	17,740	-	-	3,278	Capacité totale ..... H.P.
1	-	-	-	12	Turbines à vapeur ..... Nomb.
1,600	-	-	-	4,457	Capacité totale ..... H.P.
28,250	18,026	-	-	3,357	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
					<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.



TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1947

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL PRIMARY POWER</u> .....H.P.	9,786,087	9,435	206,727	166,957	5,468,168
Per cent of total for Canada .....	100.00	0.10	2.11	1.71	55.88
Water wheels and turbines ..... No.	788	6	55	14	280
Total capacity ..... H.P.	9,131,850	363	106,658	104,260	5,424,600
Steam reciprocating engines ..... No.	21	1	5	2	-
Total capacity ..... H.P.	12,086	75	2,990	1,800	-
Steam turbines ..... No.	116	4	20	10	8
Total capacity ..... H.P.	565,098	6,680	94,051	56,045	36,224
Gas and oil engines ..... No.	433	16	18	13	15
Total capacity ..... H.P.	77,053	2,517	3,028	4,852	7,344
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	8,138,687	7,045	172,519	142,127	4,636,161
Per cent of total for Canada .....	100.00	0.09	2.12	1.74	56.96
Dynamos, A.C. .... No.	1,263	23	97	38	302
Total capacity ..... Kv.A.	8,134,876	7,045	172,019	142,127	4,636,161
Dynamos, D.C. .... No.	84	-	1	-	-
Total capacity ..... Kw.	3,811	-	300	-	-
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	6,025,254	7,650	118,172	123,465	4,401,212
Water Wheels and turbines ..... No.	426	8	16	8	205
Total capacity ..... H.P.	5,750,950	363	25,878	91,400	4,392,540
Steam reciprocating engines ..... No.	17	1	5	2	-
Total capacity ..... H.P.	8,026	75	2,990	1,800	-
Steam turbines ..... No.	55	4	15	6	3
Total capacity ..... H.P.	239,268	6,680	86,845	29,665	5,500
Gas and oil engines ..... No.	218	11	8	2	8
Total capacity ..... H.P.	27,010	532	2,459	600	5,172
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	5,023,723	5,559	98,449	105,020	3,678,338
Dynamos, A.C. .... No.	639	18	43	17	215
Total capacity ..... Kv.A.	5,021,423	5,559	98,149	105,020	3,678,338
Dynamos, D.C. .... No.	66	-	1	-	-
Total capacity ..... Kw.	2,300	-	300	-	-
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	3,760,833	1,785	88,555	43,492	1,066,956
Water Wheels and turbines ..... No.	362	-	39	6	75
Total capacity ..... H.P.	3,380,900	-	80,780	12,860	1,052,060
Steam reciprocating engines ..... No.	4	-	-	-	-
Total capacity ..... H.P.	4,060	-	-	-	-
Steam turbines ..... No.	61	-	5	4	5
Total capacity ..... H.P.	325,830	-	7,206	26,380	32,724
Gas and oil engines ..... No.	215	5	10	11	7
Total capacity ..... H.P.	50,043	1,785	569	4,252	2,172
<u>TOTAL DYNAMO CAPACITY</u> .....Kv.A.	3,114,964	1,486	73,870	37,107	957,823
Dynamos, A.C. .... No.	624	5	54	21	87
Total capacity ..... Kv.A.	3,113,453	1,486	73,870	37,107	957,823
Dynamos, D.C. .... No.	18	-	-	-	-
Total capacity ..... Kw.	1,511	-	-	-	-

X - One hydraulic station formerly with Manitoba now shown in Saskatchewan.



TABLEAU 10 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1947

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,471,765	<b>X</b> 465,978	<b>X</b> 265,609	250,561	504,889	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H.P.
25.26	4.74	2.69	2.55	5.16	Pourcentage du total pour le Canada .....
511	40	5	10	67	Turbines et roues hydrauliques ..... Nomb.
2,425,565	442,800	87,500	104,500	455,806	Capacité totale ..... H.P.
-	1	1	11	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	1,750	750	4,721	-	Capacité totale ..... H.P.
5	6	24	19	20	Turbines à vapeur ..... Nomb.
42,020	17,740	147,018	110,190	55,130	Capacité totale ..... H.P.
15	11	164	114	69	Moteurs à gaz et à pétrole ..... Nomb.
4,580	1,688	28,341	11,150	15,953	Capacité totale ..... H.P.
1,971,791	375,089	221,657	193,573	418,925	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
24.25	4.61	2.72	2.38	5.15	Pourcentage du total pour le Canada .....
529	57	142	125	150	Dynamos, C.A. .... Nomb.
1,971,791	375,089	220,751	191,018	418,895	Capacité totale ..... Kv.A.
-	-	54	26	3	Dynamos, C.D. .... Nomb.
-	-	926	2,555	30	Capacité totale ..... Kw.
409,772	266,848	120,809	138,470	458,856	<u>USINES COMMERCIALES</u>
112	18	5	10	46	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
395,297	265,800	87,500	104,500	387,672	Turbines et roues hydrauliques ..... Nomb.
-	-	-	9	-	Capacité totale ..... H.P.
-	-	-	3,161	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
3	-	4	6	14	Capacité totale ..... H.P.
12,520	-	51,998	20,300	47,760	Turbines à vapeur ..... Nomb.
6	9	44	105	25	Capacité totale ..... H.P.
1,955	1,048	1,511	10,509	3,424	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
555,533	206,968	96,661	111,637	367,558	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
121	26	11	108	80	Dynamos, C.A. .... Nomb.
555,533	206,968	96,049	110,279	367,528	Capacité totale ..... Kv.A.
-	-	41	21	3	Dynamos, C.D. .... Nomb.
-	-	612	1,358	30	Capacité totale ..... Kw.
2,061,991	197,130	142,800	92,091	66,033	<u>USINES MUNICIPALES</u>
199	22	-	-	21	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
2,050,066	177,000	-	-	48,134	Turbines et roues hydrauliques ..... Nomb.
-	1	1	2	-	Capacité totale ..... H.P.
-	1,750	750	1,560	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	6	20	13	6	Capacité totale ..... H.P.
29,500	17,740	115,020	89,890	7,370	Turbines à vapeur ..... Nomb.
7	2	120	9	44	Capacité totale ..... H.P.
2,425	640	27,030	641	10,529	Moteurs à gaz et à pétrole ..... Nomb.
					Capacité totale ..... H.P.
618,258	168,121	124,996	81,936	51,367	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
208	31	151	17	70	Dynamos, C.A. .... Nomb.
618,258	168,121	124,682	80,739	51,367	Capacité totale ..... Kv.A.
-	-	13	5	-	Dynamos, C.D. .... Nomb.
-	-	514	1,197	-	Capacité totale ..... Kw.

- Une station hydraulique préalablement mentionnée sous le titre Manitoba se trouve maintenant sous celui de Saskatchewan.

TABLE 11 - MAIN PLANT EQUIPMENT, 1947

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada	100.00	0.10	2.13	1.69	56.51
Water Wheels and turbines ..... No.	788	6	55	14	280
Total Capacity ..... H.P.	9,131,850	363	106,658	104,260	5,424,600
Steam reciprocating engines ..... No.	9	-	2	2	-
Total Capacity ..... H.P.	6,318	-	1,800	1,800	-
Steam turbines ..... No.	75	4	19	7	-
Total Capacity ..... H.P.	405,581	6,680	93,381	54,120	-
Gas and oil engines ..... No.	388	15	17	8	5
Total Capacity ..... H.P.	57,408	2,257	2,863	1,892	660
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	0.09	2.14	1.73	57.58
Dynamos, A.C. .... No.	1,174	22	93	31	286
Total Capacity ..... Kv.A.	7,982,077	6,997	170,681	138,366	4,597,773
Dynamos, D.C. .... No.	81	-	-	-	-
Total Capacity ..... Kw.	2,411	-	-	-	-
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada	100.00	0.13	1.96	2.04	74.00
Water Wheels and turbines ..... No.	426	6	16	8	205
Total Capacity ..... H.P.	5,750,950	363	25,878	91,400	4,392,540
Steam reciprocating engines ..... No.	6	-	2	2	-
Total Capacity ..... H.P.	4,008	-	1,800	1,800	-
Steam turbines ..... No.	80	4	14	3	-
Total Capacity ..... H.P.	163,393	6,680	86,175	27,740	-
Gas and oil engines ..... No.	194	10	7	-	3
Total Capacity ..... H.P.	17,774	472	2,294	-	480
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	0.11	1.95	2.09	74.16
Dynamos, A.C. .... No.	587	17	39	13	209
Total Capacity ..... Kv.A.	4,949,962	5,511	96,811	103,285	3,671,619
Dynamos, D.C. .... No.	63	-	-	-	-
Total Capacity ..... Kw.	900	-	-	-	-
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada	100.00	0.05	2.42	1.12	28.16
Water Wheels and turbines ..... No.	362	-	39	6	75
Total Capacity ..... H.P.	3,380,900	-	80,780	12,860	1,032,060
Steam reciprocating engines ..... No.	3	-	-	-	-
Total Capacity ..... H.P.	2,310	-	-	-	-
Steam turbines ..... No.	45	-	5	4	-
Total Capacity ..... H.P.	242,188	-	7,206	26,380	-
Gas and oil engines ..... No.	194	5	10	8	2
Total Capacity ..... H.P.	39,834	1,785	569	1,892	180
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	0.05	2.43	1.16	30.53
Dynamos, A.C. .... No.	587	5	54	18	77
Total Capacity ..... Kv.A.	3,032,115	1,486	73,870	35,081	926,154
Dynamos, D.C. .... No.	18	-	-	-	-
Total Capacity ..... Kw.	1,511	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	0.01	1.15	1.19	60.62
Dynamos, A.C. .... No.	785	5	55	14	281
Total Capacity ..... Kv.A.	7,583,998	338	87,095	90,288	4,597,229
Dynamos, D.C. .... No.	-	-	-	-	-
Total Capacity ..... Kw.	-	-	-	-	-
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada	100.00	1.66	20.87	12.00	0.14
Dynamos, A.C. .... No.	389	17	58	17	5
Total Capacity ..... Kv.A.	538,773	6,659	85,586	48,078	544
Dynamos, D.C. .... No.	81	-	-	-	-
Total Capacity ..... Kw.	2,411	-	-	-	-

X - One hydraulic station formerly with Manitoba now shown in Saskatchewan.



TABLEAU 11 - OUTILLAGE DES USINES PRINCIPALES, 1947

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
2,426,503	X 444,488	X 263,609	211,598	453,625	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
25.27	4.63	2.75	2.20	4.72	Pourcentage du total pour le Canada ..... H.P.
511	40	5	10	67	Roues hydrauliques et turbines ..... Nomb.
2,425,365	442,800	87,500	104,500	435,806	Capacité totale ..... H.P.
-	-	1	4	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	750	1,968	-	Capacité totale ..... H.P.
-	-	24	15	6	Turbines à vapeur ..... Nomb.
-	-	147,018	95,190	9,192	Capacité totale ..... H.P.
9	11	164	107	52	Moteurs à gaz et à pétrole ..... Nomb.
1,140	1,688	28,341	9,940	8,627	Capacité totale ..... H.P.
1,934,447	357,063	221,657	176,911	380,593	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
24.25	4.47	2.78	2.21	4.77	Pourcentage du total pour le Canada ..... H.P.
520	50	142	109	121	Dynamos, C.A. .... Nomb.
1,934,447	357,063	220,731	175,456	380,563	Capacité totale ..... Kv.A.
-	-	54	24	3	Dynamos, C.D. .... Nomb.
-	-	926	1,455	30	Capacité totale ..... Kw.
395,612	266,848	120,809	119,507	395,727	<u>USINES COMMERCIALES</u>
6.66	4.50	2.03	2.01	6.67	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
112	18	5	10	46	Pourcentage du total pour le Canada ..... H.P.
395,297	265,800	87,500	104,500	387,672	Turbines et roues hydrauliques ..... Nomb.
-	-	-	2	-	Capacité totale ..... H.P.
-	-	-	408	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	-	2	3	Capacité totale ..... H.P.
-	-	4	2	8	Turbines à vapeur ..... Nomb.
5	9	44	98	20	Capacité totale ..... H.P.
515	1,048	1,511	9,299	2,555	Moteurs à gaz et à pétrole ..... Nomb.
542,439	206,968	96,661	94,975	352,593	Capacité totale ..... H.P.
6.92	4.18	1.95	1.92	6.72	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
115	26	11	92	65	Pourcentage du total pour le Canada ..... H.P.
542,439	206,968	96,049	94,717	332,563	Dynamos, C.A. .... Nomb.
-	-	41	19	3	Capacité totale ..... Kv.A.
-	-	612	258	30	Dynamos, C.D. .... Nomb.
-	-	-	-	-	Capacité totale ..... Kw.
2,030,891	177,640	142,800	92,091	57,898	<u>USINES MUNICIPALES</u>
55.41	4.85	3.90	2.51	1.58	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
199	22	-	-	21	Pourcentage du total pour le Canada ..... H.P.
2,030,066	177,000	-	-	48,134	Turbines et roues hydrauliques ..... Nomb.
-	-	1	2	-	Capacité totale ..... H.P.
-	-	750	1,560	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	20	13	3	Capacité totale ..... H.P.
-	-	115,020	89,890	3,692	Turbines à vapeur ..... Nomb.
6	2	120	9	32	Capacité totale ..... H.P.
825	640	27,030	641	6,072	Moteurs à gaz et à pétrole ..... Nomb.
1,592,008	150,095	124,996	81,936	48,000	Capacité totale ..... H.P.
52.48	4.95	4.12	2.70	1.58	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
205	24	151	17	56	Pourcentage du total pour le Canada ..... H.P.
1,592,008	150,095	124,682	80,739	48,000	Dynamos, C.A. .... Nomb.
-	-	13	5	-	Capacité totale ..... Kv.A.
-	-	314	1,197	-	Dynamos, C.D. .... Nomb.
-	-	-	-	-	Capacité totale ..... Kw.
1,933,585	355,600	72,000	32,750	365,113	<u>USINES HYDRAULIQUES</u>
25.49	4.69	0.95	1.09	4.81	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
311	40	5	10	64	Pourcentage du total pour le Canada ..... H.P.
1,933,585	355,600	72,000	82,750	365,113	Dynamos, C.A. .... Nomb.
-	-	-	-	-	Capacité totale ..... Kv.A.
-	-	-	-	-	Dynamos, C.D. .... Nomb.
-	-	-	-	-	Capacité totale ..... Kw.
862	1,463	149,657	94,161	15,480	<u>USINES A COMBUSTIBLE</u>
0.21	0.37	37.37	23.51	3.87	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
9	10	137	99	57	Pourcentage du total pour le Canada ..... H.P.
862	1,463	148,731	92,706	15,450	Dynamos, C.A. .... Nomb.
-	-	54	24	3	Capacité totale ..... Kv.A.
-	-	926	1,455	30	Dynamos, C.D. .... Nomb.
-	-	-	-	-	Capacité totale ..... Kw.

X - Une station hydraulique préalablement mentionnée sous le titre Manitoba se trouve maintenant sous celui de Saskatchewan.



TABLE 12 - ELECTRIC ENERGY GENERATED, 1947

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>ALL STATIONS</u>					
Total kilowatt hours generated ..... (thousands)	43,424,799	20,382	617,111	592,458	25,930,171
Per cent of total for Canada .....	100.00	0.05	1.42	1.56	59.71
Kilowatt hours generated by non-generating stations (thousands)	679	-	-	497	-
Kilowatt hours generated by generating stations .... (thousands)	43,424,120	20,382	617,111	591,961	25,930,171
Kv.A. capacity of generating stations .....	8,119,644	7,045	170,831	140,092	4,626,161
Ratio of output to maximum capacity ..... p.c.	61.05	33.03	41.25	48.24	63.98
Average kilowatt hours per Kv.A. ....	5,348	2,893	3,612	4,226	5,605
<u>GENERATING STATIONS</u>					
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	27,665,417	16,668	350,288	438,460	20,780,204
Kv.A. capacity .....	5,019,256	5,559	96,961	103,285	3,678,358
Ratio of output to maximum capacity ..... p.c.	62.92	34.22	41.24	46.46	64.49
Average kilowatt hours per Kv.A. ....	5,512	2,998	3,613	4,245	5,649
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	27,227,499	556	90,847	396,322	20,779,401
Kv.A. capacity .....	4,867,391	386	19,758	80,025	3,677,941
Ratio of output to maximum capacity ..... p.c.	63.86	16.44	52.55	56.53	64.50
Average kilowatt hours per Kv.A. ....	5,594	1,440	4,603	4,952	5,650
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	437,918	16,112	259,441	42,138	803
Kv.A. capacity .....	151,865	5,173	77,223	23,260	397
Ratio of output to maximum capacity ..... p.c.	32.92	35.56	38.56	20.68	23.09
Average kilowatt hours per Kv.A. ....	2,884	3,115	3,360	1,812	2,023
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	15,758,703	3,714	266,823	153,501	5,149,967
Kv.A. capacity .....	3,100,388	1,486	75,870	36,807	947,823
Ratio of output to maximum capacity ..... p.c.	58.03	28.53	41.25	47.60	62.02
Average kilowatt hours per Kv.A. ....	5,083	2,499	3,612	4,170	5,433
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	15,161,422	-	258,557	26,787	5,149,690
Kv.A. capacity .....	2,851,763	-	67,507	11,989	947,676
Ratio of output to maximum capacity ..... p.c.	60.70	-	45.72	25.50	62.05
Average kilowatt hours per Kv.A. ....	5,317	-	3,830	2,234	5,434
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	597,281	3,714	8,266	126,714	277
Kv.A. capacity .....	248,625	1,486	6,363	24,818	147
Ratio of output to maximum capacity ..... p.c.	27.42	28.53	14.83	58.29	21.51
Average kilowatt hours per Kv.A. ....	2,402	2,499	1,299	5,106	1,884
<u>TOTAL HYDRAULIC STATIONS</u>					
Kilowatt hours generated ..... (thousands)	42,388,921	556	349,404	423,109	25,929,091
Kv.A. capacity .....	7,719,154	586	87,245	92,014	4,625,517
Ratio of output to maximum capacity ..... p.c.	62.68	16.44	45.72	52.49	64.00
Average kilowatt hours per Kv.A. ....	5,491	1,440	4,005	4,598	5,506
Kilowatt hours generated by water power ..... (thousands)	42,275,167	556	349,403	420,510	25,926,927
Kilowatt hours generated by auxiliary plants ..... (thousands)	113,754	-	1	2,599	2,164
<u>TOTAL FUEL STATIONS</u>					
Kilowatt hours generated ..... (thousands)	1,035,199	19,826	267,707	168,852	1,080
Kv.A. capacity .....	400,490	6,659	83,586	48,078	544
Ratio of output to maximum capacity ..... p.c.	29.51	33.98	36.56	40.09	22.66
Average kilowatt hours per Kv.A. ....	2,585	2,977	3,203	3,512	1,985
<u>CONSUMPTION OF ELECTRIC ENERGY (Thousands of kilowatt hours)</u>					
Total kilowatt hours generated .....	43,424,799	20,382	617,111	592,458	25,930,171
Kilowatt hours imported from the United States .....	53,037	-	-	11	418
Kilowatt hours imported from other provinces .....	-	-	-	7,496	1,139
Kilowatt hours exported to the United States .....	2,066,487	-	-	59,550	x 4,290
Kilowatt hours exported to other provinces .....	-	-	-	-	5,694,714
<u>KILOWATT HOURS FOR CONSUMPTION IN CANADA</u> ..... (thousands)					
Domestic service .....	41,411,349	20,382	617,111	560,435	20,232,724
Commercial light .....	4,383,222	6,917	94,135	63,728	692,535
Small power .....	2,060,614	3,438	51,095	39,414	516,651
Large power .....	660,730	964	52,331	16,154	123,067
Municipal power .....	29,555,880	1,280	330,440	392,715	17,273,617
Street lighting .....	695,328	2,877	5,940	1,688	155,240
Free service (other than street lighting) .....	245,442	433	6,447	5,329	45,784
Losses .....	68,327	22	3,684	228	55,182
	3,741,806	4,451	75,039	41,179	1,370,848

x Excludes exports to other provinces and/or to the United States.

x - Exports of Quebec power to U.S.A. through Ontario are credited to Ontario.

TABLEAU 12 - ENERGIE ELECTRIQUE GENEREE, 1947

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
11,191,695 25.77 107 11,191,586 1,970,697 64.85 5,679	2,051,754 4.68 75 2,051,679 570,818 62.55 5,479	762,882 1.76 - 762,882 221,657 59.29 5,442	641,351 1.48 - 641,351 193,578 57.82 3,313	1,637,017 3.77 - 1,637,017 418,775 44.62 3,909	<u>TOUTES USINES</u> Total kw. heure générés ..... (milliers) Pourcentage du total pour le Canada ..... Kilowatt-heure générés par les usines non-génératrices ..... (milliers) Kilowatt-heure générés par les usines génératrices ..... (milliers) Capacité des usines génératrices en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
2,274,149 352,459 73.66 6,455	1,279,268 206,968 70.56 6,181	520,137 96,661 61.43 5,381	431,942 111,637 44.17 3,869	1,574,281 367,408 48.92 4,285	<u>USINES GENERATRICES</u> <u>USINES COMMERCIALES</u> <u>TOTAL</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
2,273,618 352,224 73.69 6,455	1,277,515 206,100 70.76 6,199	463,059 72,000 73.41 6,431	402,397 99,412 46.21 4,048	1,543,784 359,565 49.01 4,293	<u>Usines Hydrauliques</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
531 215 28.20 2,470	1,773 868 23.52 2,043	57,078 24,661 26.43 2,515	29,545 12,225 27.59 2,417	30,497 7,843 44.58 3,888	<u>Usines à combustible</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
8,917,437 1,618,258 62.91 5,511	752,391 163,845 52.42 4,592	242,745 124,996 22.17 1,942	209,389 81,936 29.18 2,556	62,736 51,367 13.94 1,221	<u>USINES MUNICIPALES</u> <u>TOTAL</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
8,915,709 1,617,611 62.92 5,512	751,053 163,250 52.52 4,601	- - - -	- - - -	59,626 43,730 15.57 1,364	<u>Usines Hydrauliques</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
1,728 647 30.49 2,671	1,338 595 25.67 2,249	242,745 124,996 22.17 1,942	209,389 81,936 29.18 2,556	3,110 7,637 4.65 407	<u>Usines à combustible</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
11,189,327 1,969,835 64.84 5,680	2,028,568 369,350 62.69 5,492	463,059 72,000 73.41 6,431	402,397 99,412 46.21 4,048	1,603,410 403,295 45.39 3,976	<u>TOUTES USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
11,182,695 6,634	2,028,541 27	463,059 -	380,569 21,828	1,520,909 82,501	Kilowatt-heure générés par force motrice hydraulique ..... (milliers) Kilowatt-heure générés par les usines auxiliaires ..... (milliers)
2,259 862 29.92 2,621	3,111 1,465 24.27 2,126	299,825 149,657 22.87 2,003	238,934 94,161 28.97 2,538	33,607 15,480 24.70 2,171	<u>TOUTES USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
11,191,695 - 5,687,218 2,020,380 1,189	2,051,754 398 6,056 1,810 -	762,882 60 - - 6,056	641,351 171 5,228 - -	1,637,017 51,979 - 477 5,228	<u>CONSUMMATION D'ENERGIE ELECTRIQUE (En Milliers de Kw.H.)</u> Total de kilowatt-heure générés ..... Kilowatt-heure importés des Etats-Unis ..... Kilowatt-heure importés d'autres provinces ..... Kilowatt-heure exportés aux Etats-Unis ..... Kilowatt-heure exportés à d'autres provinces .....
14,857,392 2,533,594 966,949 251,452	2,036,398 501,744 149,851 72,479	756,886 76,152 52,345 35,254	646,730 88,866 77,081 46,260	1,683,291 526,251 203,790 62,769	<u>Kilowatt-heure consommées au Canada</u> ..... (milliers) <u>Service domestique</u> ..... <u>Eclairage commercial</u> ..... <u>Petite force motrice</u> ..... <u>Grosse force motrice</u> ..... <u>Energie (municipale)</u> ..... <u>Eclairage des rues</u> ..... <u>Service gratuit (autre que l'éclairage des rues)</u> ..... <u>Pertes</u> .....
9,037,450 368,331 118,538 1,396 1,581,682	897,120 128,320 25,958 235 262,711	506,756 16,421 6,633 196 63,129	324,037 17,561 12,297 3,694 77,634	792,465 3,150 26,045 3,690 265,135	

Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.

x - Les exportations d'énergie électrique du Québec aux Etats-Unis par l'Ontario sont rapportées sous le titre Ontario.



TABLE 13 - FUEL, 1947

	Bituminous Coal Charbon Bitumineux			
	Canadian - Canadien		Imported - Importé	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA .....	x 584,625	x 3,321,206	10,753	141,469
Prince Edward Island .....	1,249	14,093	-	-
Nova Scotia .....	205,712	1,395,931	10,340	137,443
New Brunswick .....	132,652	1,048,065	-	-
Quebec .....	414	4,052	138	1,607
Ontario .....	-	-	275	2,419
Manitoba .....	-	-	-	-
Saskatchewan .....	x 124,904	x 522,218	-	-
Alberta .....	x 95,728	x 196,341	-	-
British Columbia and Yukon ...	x 23,966	x 140,506	-	-
	Fuel Oil and Diesel Oil Mazout et huile diesel		Wood Bois	
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Gal. Gal.	\$	Cords Cordes	\$
CANADA .....	29,705,033	2,300,391	-	-
Prince Edward Island .....	2,992,773	237,083	-	-
Nova Scotia .....	306,263	37,657	-	-
New Brunswick .....	748,948	82,163	-	-
Quebec .....	218,818	33,261	-	-
Ontario .....	413,168	63,109	-	-
Manitoba .....	174,259	39,745	-	-
Saskatchewan .....	16,616,086	1,008,102	-	-
Alberta .....	946,356	149,246	-	-
British Columbia and Yukon ...	7,288,362	650,025	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu.ft.

x - Includes sub-bituminous coal



TABLEAU 13 - COMBUSTIBLE, 1947

<u>Lignite Coal</u> Charbon Lignite		<u>Gasoline</u>		<u>Kerosene</u>	
Canadian - Canadien		Gasoline		Kérosène	
<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Quantity</u> Quantité	<u>Value</u> Valeur
<u>Tons</u> Tonnes	\$	<u>Gal.</u> Gal.	\$	<u>Gal.</u> Gal.	\$
224,512	530,399	46,053	12,129	323	74
-	-	20,569	5,593	-	-
-	-	-	-	323	74
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
47,192	73,057	19,948	5,193	-	-
177,320	457,342	5,472	1,295	-	-
-	-	64	48	-	-
<u>Manufactured Gas</u> Gaz fabriqué		<u>Natural Gas</u> Gaz naturel		<u>Other Fuel</u> Autre combustible	Total
<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Quantity</u> Quantité	<u>Value</u> Valeur	<u>Value</u> Valeur	<u>Value</u> Valeur
<u>,000 cu. ft.</u> <u>,000 pds. cu.</u>	\$	<u>1,000 cu. ft.</u> <u>1,000 pds. cu.</u>	\$	\$	\$
11,278,804	205,274	1,356,146	117,620	55,843	6,684,405
-	-	-	-	-	256,769
11,278,804	205,274	-	-	3,467	1,779,846
-	-	-	-	-	1,130,228
-	-	-	-	-	38,920
-	-	-	-	-	65,528
-	-	-	-	29,797	69,542
-	-	-	-	1,976	1,610,546
-	-	1,356,146	117,620	247	922,091
-	-	-	-	20,356	810,935

Note: Tonne - 2,000 livres  
Gallon - Impérial  
Corde - 128 pds. cu.

TABLE 6A- / EXPENSES, 1946 (Revised <sup>δ</sup>)

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>TOTAL EXPENSES</u> .....	156,708,176	457,111	7,847,338	3,790,142	40,753,536
Per cent of total for Canada .....	100.00	0.29	5.01	2.42	26.00
Salaries and wages .....	52,380,686	161,723	2,291,688	1,437,120	13,100,755
Fuel .....	5,585,206	217,756	1,403,553	808,850	64,464
Taxes (x) .....	22,169,479	75,499	967,596	213,483	17,099,181
Cost of power .....	76,572,805	2,133	3,184,501	1,330,709	15,488,936
<u>TOTAL FOR COMMERCIAL STATIONS</u> .....	67,664,274	411,831	5,887,690	1,682,155	29,952,810
Salaries and wages .....	19,630,478	142,343	1,441,464	467,492	9,412,315
Fuel .....	3,304,399	191,856	1,273,169	261,934	11,541
Taxes (x) .....	19,009,251	75,499	901,852	213,044	10,493,934
Cost of power .....	25,720,146	2,133	2,271,205	739,685	10,034,220
Non-generating stations .....	12,848,252	2,133	931,699	966,532	165,723
Generating stations .....	54,816,022	409,698	4,955,991	715,623	28,886,787
Hydraulic stations .....	47,019,887	11,140	614,043	247,649	29,761,233
Fuel stations .....	7,796,135	398,558	4,341,948	467,974	25,554
<u>TOTAL FOR MUNICIPAL STATIONS</u> .....	89,043,902	45,280	1,959,648	2,107,987	10,900,826
Salaries and wages .....	32,750,208	19,580	850,224	969,628	3,687,940
Fuel .....	2,280,807	25,900	130,384	546,896	52,923
Taxes (x) .....	3,160,228	-	65,744	439	1,905,247
Cost of power .....	50,852,659	-	913,296	591,024	5,454,716
Non-generating stations .....	43,151,080	-	883,189	565,757	644,560
Generating stations .....	45,892,822	45,280	1,076,459	1,542,230	10,156,266
Hydraulic stations .....	40,960,296	-	653,501	87,691	10,088,677
Fuel stations .....	4,932,526	45,280	422,958	1,454,539	67,589
<u>TOTAL EXPENSES FOR NON-GENERATING STATIONS</u> .....	55,999,332	2,133	1,814,888	1,532,289	810,283
Salaries and wages .....	11,639,743	-	443,659	303,261	247,146
Fuel .....	8,358	-	56	-	-
Taxes (x) .....	1,986,046	-	145,902	66,886	10,236
Cost of power .....	42,365,185	2,133	1,225,271	1,162,142	552,901
<u>TOTAL EXPENSES FOR GENERATING STATIONS</u> .....	100,708,844	454,978	6,032,450	2,257,853	39,943,053
Salaries and wages .....	40,740,943	161,723	1,848,029	1,135,859	12,853,609
Fuel .....	5,576,848	217,756	1,403,497	808,850	64,464
Taxes (x) .....	20,183,453	75,499	821,694	146,597	12,088,945
Cost of power .....	34,207,620	-	1,959,250	168,567	14,936,035
Hydraulic stations .....	87,980,183	11,140	1,267,544	335,340	39,649,910
Fuel stations .....	12,728,661	443,838	4,764,906	1,922,513	98,143

(x) Sales tax not included (see page 8).

/ Includes only the four items listed.

δ Revised to include salaries and wages paid for construction work done by own employees.

TABLEAU 6A - DEPENSES, 1948 (Révisé)

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	
\$	\$	\$	\$	\$	
74,777,922	4,186,585	4,263,126	4,725,992	15,906,626	<u>TOTAL DES DEPENSES</u>
47.72	2.67	2.72	3.02	10.15	Pourcentage du total pour le Canada
24,783,957	2,952,442	1,413,724	1,686,745	4,552,532	Salaires et gages
75,976	65,405	1,367,781	811,335	770,106	Combustible
2,973,596	271,707	460,902	1,073,799	4,033,716	Taxes (x)
46,944,398	607,029	1,020,719	1,154,113	8,122,272	Achat d'énergie électrique
9,578,773	1,808,384	1,479,539	2,298,563	14,114,526	<u>TOTAL POUR LES USINES COMMERCIALES</u>
1,618,101	1,089,733	511,543	1,028,972	3,918,015	Salaires et gages
9,977	18,632	489,653	337,041	710,596	Combustible
2,008,333	159,061	391,765	756,759	4,009,004	Taxes (x)
5,942,362	540,958	86,578	175,791	5,927,214	Achat d'énergie électrique
2,434,917	570,813	3,568	50,355	7,111,312	Usines non-génératrices
7,143,856	1,228,571	1,475,971	2,247,608	6,851,917	Usines génératrices
7,125,093	1,174,113	-	1,457,232	6,629,384	Usines hydrauliques
18,763	54,458	1,475,971	790,376	222,533	Usines à combustible
65,199,149	2,376,199	2,783,587	2,427,429	1,341,737	<u>TOTAL POUR LES USINES MUNICIPALES</u>
23,165,856	1,862,709	902,181	657,773	634,517	Salaires et gages
65,999	46,773	878,128	474,294	59,510	Combustible
965,263	112,646	69,137	317,040	24,712	Taxes (x)
41,002,031	356,071	934,141	978,322	623,058	Achat d'énergie électrique
37,266,698	737,579	958,153	1,458,492	676,652	Usines non-génératrices
27,932,451	1,580,620	1,825,434	968,937	765,145	Usines génératrices
27,886,517	1,537,482	-	-	706,428	Usines hydrauliques
45,934	43,138	1,825,434	968,937	58,717	Usines à combustible
59,701,615	1,377,392	961,721	1,509,447	8,289,564	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
7,686,669	464,535	125,096	282,167	2,087,210	Salaires et gages
83	-	-	-	8,219	Combustible
316,582	15,828	68,830	214,025	1,147,757	Taxes (x)
1,698,281	897,029	767,795	1,013,255	5,046,378	Achat d'énergie électrique
5,076,307	2,809,191	3,301,405	3,216,545	7,417,062	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
7,097,288	2,487,907	1,288,628	1,404,578	2,465,322	Salaires et gages
75,893	65,405	1,367,781	811,335	761,887	Combustible
2,657,014	255,879	392,072	859,774	2,885,959	Taxes (x)
5,246,112	-	252,924	140,858	1,503,894	Achat d'énergie électrique
5,011,610	2,711,595	-	1,457,232	7,335,812	Usines hydrauliques
64,697	97,596	3,301,405	1,759,313	281,250	Usines à combustible.

Ne comprend que les quatre items énumérés.

(x) Taxe des ventes non comprises (Voir p. 8).

Révisé de façon à inclure les traitements et salaires payés pour du travail de construction effectué par ses propres employés.





BUREAU FEDERAL DE LA STATISTIQUE  
MINISTERE DU COMMERCE

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Publié par ordre du très hon. C. D. Howe  
Ministre du Commerce

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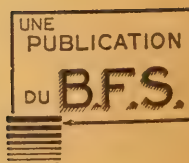
**GOUVERNEMENT DU CANADA**

**RECENSEMENT DE L'INDUSTRIE**

**1947**

**CENTRALES ELECTRIQUES**

**AU CANADA**



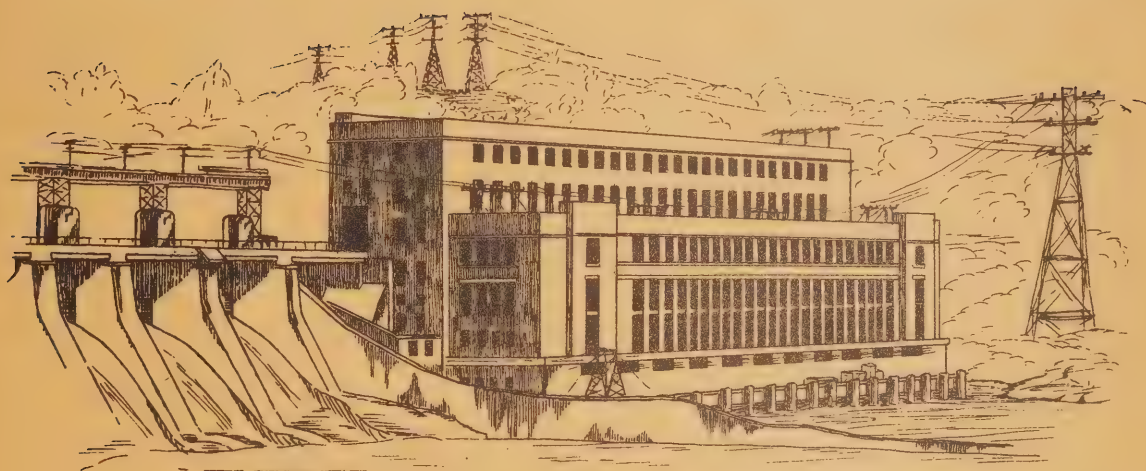


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Electric power statistics

CENSUS OF INDUSTRY

1948



CENTRAL ELECTRIC STATIONS

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PUBLICATION



**DOMINION BUREAU OF STATISTICS**  
**Department of Trade and Commerce**

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# THE CENTRAL ELECTRIC STATION INDUSTRY

1 9 4 8

## Introduction

For the purpose of the annual census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals and (b) municipal (or publicly owned), - those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase practically all the power they sell. In this last class there were 9 stations which were holding generating equipment classed as auxiliary plant equipment. Six of them purchased all their electric energy and the remaining three generated only 1,155,000 kilowatt hours. This explains the rather anomalous item in table 12 showing the output of non-generating stations.

Included in these statistics are those of a few stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible. Equipment, which is not used primarily for the Central Electric Station Industry, is not shown in the current report, accounting for a drop in the number of units listed for commercial stations as compared with former years. This is especially noticeable in Saskatchewan and Alberta.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently, the output as recorded in this annual report will not coincide with the output of the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods. Moreover, the monthly does not include statistics for the smaller stations and shows the net power generated by reporting stations, whereas the annual excludes power for company use. Further, for comparability the monthly report retains the West Kootenay plants which were dropped from the annual in 1947 as their entire output was taken by the parent company and is reported under the metal smelting and refining industry.

During 1948 primary power consumed in Canada (including all line losses) increased from 35,816,005,000 kilowatt hours in 1947 to 38,428,977,000 kilowatt hours, or by 7.3 per cent, but the consumption of secondary power decreased from 5,595,344,000 kilowatt hours in 1947 to 2,303,987,000 or by 58.8 p.c., due in part to a water shortage experienced throughout Eastern Canada.

Secondary power is off-peak or surplus power delivered as it is available. It is subject to interruption or variation daily and seasonally, and consequently is sold at relatively low rates. The stations endeavour to keep their "secondary" customers advised as much in advance as possible of interruptions or reductions, which may be due to variations in water supply or in the demands of customers for primary power.

Primary power, also known in the industry as firm power, is power delivered as and when demanded or required by the customer. Stations must be ready to deliver power to primary power customers up to the rate contracted for, whenever the customer requires it, and consequently must have sufficient capacity to

take care of all such demands. In practice, all customers on a system do not require their maximum deliveries at the same time and generally there is a considerable difference hourly and daily in the rate at which the power plant must operate to produce the power as required. Most of the secondary power is sold to pulp and paper mills for the production of low pressure steam where short interruptions of electric energy for the boilers can be tolerated without much inconvenience. Secondary sales are confined mainly to Quebec, Ontario and Manitoba, with Quebec using 65 p.c. of the total secondary consumed in Canada.

Based on monthly reports, the consumption of primary power has continued to increase steadily since September of 1946 and is currently running 50 p.c. above that month. Deliveries of secondary power had risen to a peak in 1946 but post war industrial activity plus water shortages and a rising domestic demand reduced the amount of secondary power available to relatively low levels, with only 2,303,987,000 kilowatt hours consumed in Canada in 1948 and 2,839,940,000 in 1949. During 1950 only a small gain is indicated despite the record addition of new hydro plant capacity and a good water supply, as industrial and domestic requirements strain facilities, particularly in Southern Ontario.

During 1948, as illustrated on page 3, the pulp and paper industry continued as the largest overall consumer of electrical energy although the metal smelting and refining industry, of which the aluminium group is the leader, surpassed the pulp and power industry as a customer of the central electric stations. Nearly 19 p.c. of station output was delivered to the pulp and paper group compared with 23 p.c. in 1947, whereas the metal smelting and refining took 19.3 p.c. during 1948 against 17.3 p.c. in 1947. Residential customers used 4,384,280,000 kilowatt hours in 1948 compared with 4,383,222,000 in 1947 and more than double the 2,310,891,000 kilowatt hours used in 1939 - a remarkable growth within the decade.

The net output of electric energy for secondary use in Canada each month is shown below:

SECONDARY POWER FOR USE IN CANADA  
(Thousands of Kilowatt Hours)

Month	1 9 4 4	1 9 4 5	1 9 4 6	1 9 4 7	1 9 4 8
January	132,138	545,019	680,016	591,531	227,866
February	146,975	506,380	645,940	566,473	211,963
March	167,028	618,420	728,074	629,033	167,122
April	162,288	674,236	735,281	539,236	255,006
May	319,574	623,467	758,487	574,708	433,290
June	263,938	560,819	679,995	546,714	216,772
July	126,336	491,774	669,444	485,508	150,748
August	209,721	481,841	661,116	385,453	147,229
September	201,485	450,404	589,653	362,825	111,420
October	267,605	545,700	641,481	434,161	114,191
November	347,940	574,349	649,611	265,024	126,923
December	398,093	573,415	628,389	215,678	141,457
TOTAL	2,743,121	6,645,824	8,067,487	5,595,344	2,303,987



For the following table, data covering the 6 groups were taken from the industrial census reports of the industries; the consumption for other industries was computed by deduction, and consequently is only approximately correct. Ferro-alloys and steel furnaces are now shown under the heading of Primary Iron and Steel, which also covers pig iron and rolling mills.

DISTRIBUTION AND CONSUMPTION OF ELECTRIC ENERGY GENERATED, 1948  
(Thousands of Kilowatt Hours)

Industries	Central Electric Station Power Purchased				Power Generated by the Industries for own use
	Power and Light	Other Purposes	Total Central Electric Stn. Power	P.C. of Total Production	
Pulp and Paper .....	6,859,334	1,162,927	8,022,261	18.92	2,327,304
Primary Iron and Steel ...	456,533	1,273,376	1,729,909	4.08	104,406
Abrasives .....	21,877	798,891	820,768	1.94	-
Electro-Chemicals .....	136,058	1,377,221	1,513,279	3.57	104,282
Metal, Smelting & Refining	882,437	7,293,705	8,176,142	19.29	684,891
Other Manufacturing .....	4,243,771	401,283	4,645,054	10.96	1,369,794
Total Manufactures ..	12,600,010	12,307,403	24,907,413	58.76	4,590,677
Other Industries .....			3,810,535	8.99	
Domestic Service (Residential) .....			4,984,280	11.76	
Commercial Lighting .....			2,154,853	5.08	
Street Lighting .....			263,639	0.62	
Free Service .....			59,978	0.14	
Exports to U. S. A. ....			1,743,108	4.11	
Losses .....			4,465,875	10.54	
TOTAL OUTPUT OF CENTRAL ELECTRIC STATIONS .....			42,389,681	100.00	

Electricity is exported from Canada only under licence granted by the Standards Division of the Department of Trade and Commerce, and the same division of the Department has jurisdiction over the export duty, which has been imposed since April 1, 1925. During the calendar year ended December 31, 1948, the export duty amounted to \$408,679.51. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported.

Below is a table showing the quantities of power exported for the calendar year 1948. The data for this table were compiled from the reports of the Director of the Standards Division, Electricity and Gas Inspection Section.

KILOWATT HOURS EXPORTED TO THE UNITED STATES  
(Calendar Years 1947 and 1948)

Company	Exported	Exported
	1 9 4 7	1 9 4 8
	Kw. Hrs.	Kw. Hrs.
Hydro Electric Power Commission of Ontario .....	391,102,400	380,703,700
" " " " " " (surplus)- Niagara	484,844,300	197,860,500
" " " " " " " - Cornwall	68,210,000	33,430,000
Quebec Hydro Commission .....	634,475,609	650,290,533
Canadian Niagara Power Company, Ltd. ....	321,725,500	324,999,600
" " " " " (surplus) .....	71,269,622	73,190,585
Ontario and Minnesota Power Company .....	48,429,000	30,225,000
Maine and New Brunswick Electric Power Company .....	34,938,946	26,370,653
British Columbia Electric Railway Company, Ltd. ....	408,630	14,208,466
Northport Power and Light Company .....	33,210	38,284
Southern Canada Power Company .....	4,289,825	2,247,418
Canadian Cottons, Ltd. ....	422,400	60,480
Northern British Columbia Power Company .....	35,410	35,650
Fraser Companies, Ltd. ....	4,169,000	9,121,000
Detroit and Windsor Subway Company .....	323,400	326,900
Manitoba Power Commission .....	1,809,600	-
TOTAL .....	2,066,486,852	1,743,108,769

Of the total Canadian output of 42,389,681,000 kilowatt hours in 1948, 41,070,095,000 kilowatt hours, or 96.9 per cent, was produced by water power, whereas only 1,206,917,000 kilowatt hours were produced by plants using only thermal engines and 112,669,000 kilowatt hours were produced by thermal auxiliary equipment in hydraulic plants and in non-generating plants.

Total hydraulic installations in all industries in Canada at the close of 1948, including active and inactive plants, as compiled by the Water Resources Division, Department of Resources and Development, were rated at 10,870,718 horse power. The available and developed water power in each province is shown below.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24 hour Power at 80% Efficiency—end of 1949		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 4 8	1 9 4 9
	H. P.	H. P.	H. P.	H. P.
Newfoundland .....	1,135,000	2,585,000	(1)	262,050
Prince Edward Island .....	500	3,000	2,617	2,617
Nova Scotia .....	25,500	156,000	140,884	145,384
New Brunswick .....	123,000	334,000	133,347	133,347
Quebec .....	8,459,000	13,064,000	5,939,697	6,130,097
Ontario .....	5,407,200	7,261,400	2,894,240	2,896,540
Manitoba .....	3,309,000	5,344,500	503,700	557,700
Saskatchewan .....	542,000	1,082,000	111,835	111,835
Alberta .....	507,800	1,258,000	106,560	107,225
British Columbia .....	7,023,000	10,998,000	1,009,769	1,238,069
Yukon & Northwest Territories ..	382,500	814,000	28,069	28,469
CANADA .....	26,914,500	42,899,000	10,870,718	11,613,333

(1) Newfoundland added April 1, 1949.

The horse power figures based on flow in columns 2 and 3 are estimated only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established and represent only the minimum possibilities. Many water-powers of greater or less capacity from coast to coast have not yet been recorded, which will increase the totals. With the construction of storage basins and other regulating works, these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum economic turbine installation capacity of the recorded water-powers of Canada was 55,000,000 horse power at the end of 1949. Vast reserves of power beckon industry still farther northward; and the distance that power can be economically transmitted is being increased well beyond 300 miles.

Figuratively, nearly every Canadian has the miracle of an "electric horse" at his command to help him do his work, to light his way, to chill or cook his food, to heat his water, to power his machine, to drive his tram or train, to bring him music, video and entertainment, to turn night into day, and do a thousand and one things with incredible speed and efficiency. The miracle of electricity has made possible our relatively high standard of living and the tremendous development of the past half century. And, in reserve, thundering down the white-maned falls and rapids of the hinterland, many millions of magic horse power await the harness of this and future generations. The 20th Century will belong to Canada mainly through the geni of electricity.



TABLE 1 - (Page 14) - COMPARATIVE SUMMARY, 1939 - 1948

In the decade from 1939 to 1948 the revenues of central electric stations have climbed from \$151,880,969 to \$257,377,490, an increase of 69.5 p.c., while electric energy generated advanced from 28,338 million kilowatt hours to nearly 42,390 million or by 49.6 p.c. The number of customers served also rose appreciably in all classes, with domestic consumers, including farm service, numbering 2,398,847 by 1948, an increase of 775,175 or 48 p.c. in the span of 10 years. Average consumption rose 46 p.c. in a similar comparison for domestic customers.

With the steady expansion of publicly owned facilities, municipal (and provincial) systems secured 53.75 p.c. of total revenues for 1948 compared with 39.07 p.c. in 1939. Revenues from domestic service brought \$79,920,387 for 1948 compared with \$70,258,591 in 1947 and \$43,793,482 in 1939. Commercial lighting produced \$42,869,215 or \$2,079,695 more than in 1947 while large power users, such as paper mills, smelters and factories, paid \$111,557,496 in 1948 against \$106,636,652 during the preceding year.

Expenses reported, which include only the four items - wages, fuel, taxes and cost of power purchased advanced to \$180,210,931 from a revised \$177,359,696 in 1947. (Cost of power from subsidiaries now consolidated had overstated the return from the B. C. Electric Railway Co. for that year.) Taxes were reduced \$790,523 to \$25,428,014. Details are shown at the top of page 10, indicating an easing of \$1,254,485 in federal taxes paid by commercial stations from 1947. Wages totalled \$68,765,222 against \$67,417,317 as employees rose by 2,645 to 29,349. Cost of purchased power (interchanged between stations) increased from a revised \$77,039,431 in 1947 to \$77,603,460. Fuel costs rose \$1,729,830 to \$8,414,235 with the cost per gallon of oil up and fuel consumption increased considerably.

Pole line mileage continued to increase to 113,722 miles compared with 98,530 miles in 1947 and 89,231 miles in 1946. Customers numbered 2,822,027, an advance of 178,700 over 1947 and nearly double the number served 20 years previous. In the same span the population of Canada rose only 31 p.c. Domestic (including farm) customers represented 85 p.c. of the national total in 1948.

Generation by all reporting stations during 1948 totalled 42,389,681,000 kilowatt hours, of which 1,743,108,000 was exported to the United States. Imports were 86,391,000 kilowatt hours mainly into British Columbia. Commercial stations generated 25,697,293,000 compared with 27,665,524,000 kilowatt hours in 1947 while municipal stations accounted for 16,692,388,000 or 39.4 p.c. of the national total in 1948 against 36.3 p.c. in the preceding year. Reduced precipitation in the East was largely responsible for the decline from 1947 in total generation.

However, municipal stations purchased considerable of the output of commercial stations at wholesale and distributed it to their widespread customers. This is particularly true of Western Quebec where commercial stations deliver a large part of their production to the Ontario Hydro Commission's system. Revenues of municipal stations were \$138,344,539 in 1948 compared with \$119,032,951 for commercial stations and the municipal group had over twice as many customers as the commercial.

The total capacity of primary equipment in central station main plants registered an increase of 4.6 p.c. from 1947 advancing from 9,601,157 to 10,038,541 horse power. Primary here signifies water wheels and turbines, steam and internal combustion engines used to operate generators, which in turn are classed as secondary power equipment.

The previous year's total was down from 1946 due to the Consolidated Mining and Smelting Company taking over the West Kootenay central electric plants 2, 3, 4 and 5 and absorbing the plants and their output as part of the mining and smelting industrial group.

TABLE 2 - (Page 16) - DOMESTIC SERVICE, 1939-1948

This table illustrates the steady growth in the number of domestic customers, total consumption, revenue, average consumption per customer and in the annual average bill over the period from 1939 to 1948, for Canada and in each province. Contrasting with these advances in the industry is the noteworthy decrease in revenue per kilowatt hour - a unique exception in an era of rising prices. This is confirmed by the annual index numbers of cost of electricity for domestic service which dropped from 103.3 in 1939 on the 1935-39 base of 100 to 85.4 in 1948.

In all provinces the number of domestic customers, including farms, registered encouraging gains during the decade, the percentage increases ranging from 34.6 p.c. in Ontario to 72.7 p.c. in New Brunswick. The greater use of electricity is illustrated by the considerable advance in the average kilowatt hours purchased per customer with the Canada total at 2,078 kw. hrs. for 1948 compared with only 1,423 in 1939 - a rise of 46 p.c. Ontario's consumption rose over 51 p.c. per domestic customer from 1,909 to 2,889 kw. hrs., but the average bill increased only 22.5 p.c. The rate of consumption also rose steadily in all other provinces with the Maritimes, Quebec and British Columbia registering large increases. Revenues from domestic sales totalled \$79,920,367 in 1948, 82.5 p.c. or \$36,126,885 above the \$43,793,482 reported for 1939 and \$9,661,776 more than in 1947. The average annual consumption per domestic customer varied widely between provinces, Manitoba leading with a 1948 average of 4,628 kw. hrs., due mainly to flat rate water heaters, while New Brunswick at 844 kw.hrs. showed the lowest average. Ontario was second with 2,889 kw. hrs. followed by British Columbia with 1,686 and Quebec 1,218 kw. hrs.

Compared with the spectacular growth in consumption, the annual average bills registered only moderate year to year increases over the past ten years. The 1948 average bill stood at \$33.32 against \$26.97 for 1939, an increase of 23.5 p.c., whereas consumption per customer rose 46 p.c. Bills ranged from \$56.31 for Prince Edward Island to \$25.72 for Quebec while average domestic service revenue per kilowatt hour in Canada was 1.6 cents in 1948, unchanged from 1947 but 15.8 p.c. under the 1.9 cents per kilowatt hour received in 1939. The bills exclude federal, provincial or municipal taxes on electricity purchased. Prince Edward Island, New Brunswick, Saskatchewan and Alberta average revenues are affected by the higher costs of thermal generation from coal, etc., while Manitoba is lowest due to the widespread use of flat rate water heaters.

A comparison with other countries shows Canadians enjoy one of the lowest rates per kilowatt hour in the world. In the United States the average revenue per kilowatt hour sold to residential or domestic customers averaged 3.06 cents in 1948 against 1.6 cents per kilowatt hour in Canada. Commercial and industrial sales in the United States fetched 1.53 cents per kilowatt hour compared with about 0.5 cents for Canada in the same year.

TABLE 3 - (Page 18) - POWER PLANTS

Generating stations are the individual power plants of the central electric organizations. Each building housing power-producing machinery is counted as a generating station. The commercial organizations are companies or individuals selling electric energy and the municipal group includes urban and rural municipalities, provincial commissions, etc. selling power. Those generating power may operate from one to several power plants each, sometimes sited at different falls or rapids on the same river as the Gatineau, Ottawa, etc. The largest system serving 970 municipalities is the Ontario Hydro-Electric Power Commission which operated 57 hydraulic plants and owned one steam



auxiliary plant in 1948. The auxiliary or standby plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included as generating stations.

Of the 635 plants reporting operations during 1948, 309 were hydraulic, principally in Ontario, Quebec and British Columbia, while 326 were thermal situated mainly in Saskatchewan and Alberta. However, the hydraulic stations generated over 97 p.c. of the power produced in Canada during the year.

TABLE 4 - (Pages 20-21) - REVENUES

Central electric stations report a division of customers, consumption and revenue according to the following headings: (1) farm service, (2) domestic service, which includes lighting and all other residential uses, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) beginning in 1946, power, municipal, mainly used in municipal water pumping stations, (7) sales to distributing companies, and (8) street lighting; also, the quantity of electricity supplied free to public buildings, company towns, etc.

The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province, the cost of such power is not deducted in computing provincial data, but is deducted in computing the national totals.

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services for each station, but even here the use of electric stoves, flat rate water heaters, the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the text. As might be expected, Quebec stations with their enormous sales to pulp and paper mills, aluminium plants, wholesale to Ontario, etc., showed a smaller proportion of revenue from domestic service than any other stations, although greater in dollars than those in other provinces except Ontario. In computing the average total revenue per kilowatt hour, all line losses were included, but for domestic service and farm services, for commercial light, etc., line losses were not included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold, including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters; often different rates apply to these different services. In most municipalities, when the consumption increases, the average cost per kilowatt hour to the consumer decreases. Also, where flat rates apply to water heaters, the average cost per kilowatt hour for all domestic services is reduced and, as the number of flat rate heaters is increased, the average for the municipality or province is decreased, unless offset by increases in rates elsewhere. The average revenue of 1.60 cents per kilowatt hour for all domestic service, or 1.55 cents with farm service excluded, compares with an average of 3.06 cents in the United States, or nearly double the Canadian figure. Over three-quarters of U. S. generation is by steam and internal combustion engine compared with about 3 p.c. in Canada. The average revenues per horse power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations, the equipment capacities shown in table 12 were increased one horse power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro-Electric Pow



Commission's contracts with Quebec companies which call for 88 kilowatt hours per week for each horse power purchased. It is quite probable this output is a little too high for all the power imported from Quebec, and consequently the divisors are too small and the average revenues are too high. It is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

Provincial and municipal taxes on domestic bills, where imposed, have not been included as either revenue or expenses. In Quebec and Saskatchewan a 2 p.c. provincial tax was in effect while in British Columbia a sales tax of 3 p.c. was imposed on August 1, 1948. (For further details see "Index Numbers of Cost of Electricity, etc. 1948" published by the Bureau.)

TABLE 5 - (Pages 22-23) - EXPENSES

This table includes only the four expense items, (1) salaries and wages, (2) fuel, (3) taxes and (4) cost of purchased power. The last is an intra-industry expense and might be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. The cost of power item includes the cost to municipalities receiving their supply from provincial commissions as well as the interchange of power between generating stations and also between generating and non-generating. As explained above, the sales taxes on domestic bills have not been included in the taxes given in this table.

To supplement Table 5, the details of taxes reported by commercial and municipal stations follow on page 10. Only in the few cases, where the station absorbed the sales taxes, are such taxes included. Water rentals, also, are excluded. The Federal unemployment insurance tax did not apply generally to utility employees until September 1, 1943, and apparently some stations still did not include the employer payments as a Federal tax in 1948. Similarly, all stations did not include under taxes, the federal and provincial taxes on gasoline used by their vehicles, etc. It is common practice to treat sales tax as part of the cost of the commodity. The Federal tax included income and excess profits tax, tax on exports of electricity, and the two mentioned above. The greater part of the municipal tax paid by municipal stations, was tax payments continued by the Ontario Hydro-Electric Commission on plants acquired from commercial stations, and in Quebec export taxes and other taxes paid by the Quebec Hydro-Electric Commission, principally to the City of Montreal. In addition, the Quebec Commission contributed \$2,240,000 to the provincial Education Fund, which item was not reported as a tax until 1947. Total taxes reported by the industry during 1948, including the contribution of Quebec Hydro, were \$25,428,014. Commercial stations paid 77.1 p.c. of the total.

REPORTED TAXES, 1948

Provinces	Commercial Stations				Municipal Stations			
	Municipal	Provincial	Federal	Total	Municipal	Provincial	Federal	Total
P. E. Island .....	27,443	2,829	23,753	54,025	-	-	-	-
Nova Scotia .....	345,943	74,689	379,754	800,386	62,524	1,760	1,506	65,790
New Brunswick .....	39,377	25,390	101,306	166,073	1,176	80	77,862	79,118
Quebec .....	2,411,884	3,846,413	6,171,229	12,429,526	762,470	3,071,223	185,345	4,019,038
Ontario .....	536,579	255,498	1,127,456	1,919,533	647,910	128,036	328,023	1,103,969
Manitoba .....	155,886	3,841	8,497	168,224	127,678	-	13,637	141,315
Saskatchewan .....	31,751	5,289	107,970	145,010	80,761	-	-	80,761
Alberta .....	61,913	113,250	654,225	829,388	275,966	-	2,297	278,263
British Columbia .....	677,991	208,453	2,192,690	3,079,134	57,329	-	-	57,329
Yukon & N.W.T. ....	1,054	390	9,688	11,132	-	-	-	-
Total .....	4,289,821	4,536,042	10,776,568	19,602,431	2,015,814	3,201,099	608,670	5,825,583
Total-Commercial Stns.	4,289,821	4,536,042	10,776,568	19,602,431				
" -Municipal "	2,015,814	3,201,099	608,670	5,825,583				
Total .....	6,305,635	7,737,141	11,385,238	25,428,014				

TABLE 6 (Pages 24-25) - EMPLOYEES

There was an increase of 2,645 employees during the year with all provinces, excepting Prince Edward Island and New Brunswick reporting heavier employment. The total at 29,349 included 11,559 in commercial and 17,790 employees in municipal stations. Some 22,462 were engaged in generating stations and 6,887 in non-generating or distributive organizations. Employment totals are based on the average number of employees per month.

On a provincial basis, 40.8 p.c. of the national total were employed in Ontario, 26.6 p.c. in Quebec, 9.2 p.c. in British Columbia, 14.8 p.c. on the Prairies and 8.5 p.c. in the Maritimes. Some 9,033 employees were on salaries while 20,316 were on wages. Among the generating stations, hydraulic operations required 19,706 employees, while fuel stations producing but 2.8 p.c. of the electric energy generated during 1948 employed 2,756, indicating one reason for higher unit costs in thermal plants.

TABLE 7 (Pages 26-27) - CUSTOMERS

As outlined under Table 4, stations report a segregation of customers into seven classes, but in the past many stations included farm customers with domestic customers, and in the Bureau's reports all customers in these two classes consequently were combined under "Domestic Customers". On Page 11 is a table giving the farm customers as reported, together with the respective consumptions and revenues received from them. Such revenues do not include taxes paid by the consumer, as previously explained. Due to the increasing activity in rural electrification, it is probable that current data are more comprehensive than previously reported. Farm customers added during 1948 totalled 43,687 and the total at 213,205 was up 25.3 p.c. over 1947. Part of the record increase was to a revision in the New Brunswick classification. Farm and residential services are combined under "Domestic" in tables 2, 4, 7 and 12 as in previous years for comparative purposes. The relatively large number of farm customers and low average revenue per kilowatt hour in Ontario reflects the assistance given by the Ontario Government to this class of service. The number of farm customers in Ontario for years previous to 1944 included rural customers in hamlets. With over 725,000 rural farms in Canada, the total of 213,205 farm customers indicates



that about 29.4 p.c. enjoyed the benefits of power line service at the end of 1948 compared with nearly three-quarters of the farms in the United States. In addition, many other Canadian farms generate their own electricity by the use of engines, windmills, etc. The continued extension of farm electrification, which had been delayed by World War 11, will add considerably to consumption totals and represents a great potential market for electrical appliances and equipment as well as power.

FARM SERVICE, 1948

Province	Number of Customers	Kilowatt Hours	Revenue	Kw. Hrs. per Customer	Average <sup>(1)</sup> Annual Bill	Revenue <sup>(1)</sup> per Kw. Hr.	P. C. of Dominion Farm Service Consumption
			\$		\$	\$	%
Prince Edward Island	2,857	1,970,443	123,823	690	43.34	6.3	0.54
Nova Scotia	12,787	9,219,148	401,607	721	31.41	4.4	2.53
New Brunswick	24,668	16,824,101	942,586	682	38.21	5.6	4.61
Quebec	65,721	49,414,203	1,751,433	752	26.35	3.5	13.55
Ontario	90,869	253,984,873	4,136,732	2,795	45.52	1.6	69.64
Manitoba	5,694	11,048,316	388,121	1,940	68.16	3.5	3.03
Saskatchewan	1,227	1,055,193	78,238	860	63.76	7.4	0.29
Alberta	3,393	6,388,910	326,801	1,883	96.32	5.1	1.75
British Columbia	5,989	14,817,753	339,952	2,474	56.76	2.3	4.06
Canada	213,205	364,722,940	8,469,293	1,711	39.72	2.3	100.00

(1) Federal, Provincial and Municipal taxes on the electricity purchased are not included.

\* Revised basis, not comparable with previous years.

Note: No farm service reported in Yukon - N.W.T.

TABLE 8 - POLE LINE MILEAGE - (Pages 28-29)

Transmission and distribution lines are combined in this table and a division has been made showing the mileage of steel towers and poles, wooden poles, concrete poles, and submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileage.

TABLES 9 - 10 - 11 - EQUIPMENT - (Pages 28-33)

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 111,514,000 kilowatt hours being generated during the year by this auxiliary equipment. As mentioned on page 1, equipment which is not used



primarily for the central electric station industry, has been omitted from the current compilation.

TABLE 12 - ELECTRIC ENERGY GENERATED (Pages 34-35)

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. The K.v.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plants of generating stations. The ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. This changes from month to month and from year to year and another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly, especially up to 1937. After the outbreak of the war the supply of surplus power was greatly reduced and with war industries working twenty four hours per day, the supply of off-peak power was also considerably curtailed so that sales of secondary power showed a steady decrease up to the middle of 1943. However, they then began to increase and continued the upward trend throughout 1944, 1945 and 1946. Subsequent to August, 1946, declining amounts of secondary power were available and production, as reported monthly, dropped from 9,141,804,000 in 1946 to 6,233,861,000 kilowatt hours in 1947, and to a low of 2,610,309,000 in 1948, but recovered to 3,218,132,000 in 1949 as supply conditions improved slightly with the addition of new plants and heavier snow and rainfall.

TABLE 13 - FUEL (Pages 36-37)

Fuel used was principally domestic or local coal, oil and manufactured gas with stations in the Maritimes, Saskatchewan and Alberta, the largest users. The value of Canadian bituminous and sub-bituminous coal was 54.7 p.c. of the total fuel bill; fuel oil and diesel oil accounted for 36 p.c., and lignite coal, gasoline, gas, etc., the remainder. Fuel consumed was valued at \$8,414,235 compared with \$6,684,405 in 1947. All coal consumed cost an average of \$5.14 per ton as against \$4.87 one year earlier, while fuel and diesel oil was up from 7.74 cents to 9.99 cents a gallon.

#### DOMESTIC SERVICE

In the following table, data on domestic customers are brought together and analysed. As might be expected the provinces with relatively high percentages of rural populations, Prince Edward Island, Saskatchewan, Alberta and the Yukon - N.W.T. show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of the use. Manitoba's low unit cost and high average consumption are influenced by flat rate water heaters and extensive use for cooking in Winnipeg; these induce high consumption per customer. There was also a large number of flat rate water heaters in Ontario.

Further, where hydro-electric power is plentiful, the rates are generally low and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and heavy consumption by pulp and paper, aluminium and other electric metallurgical plants.

During 1948 domestic customers in Ontario consumed 56.2 per cent of the total power used by all domestic customers in Canada, whereas the population of this province was about a third of the total for the nation.

The average bills do not include federal, provincial and municipal sales taxes paid by the consumers.

(1) DOMESTIC SERVICE  
1 9 4 8

Province	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	P.C. of (2) total Power used in Province	P.C. of Domestic Power used in Canada
			\$	¢	Kw. hrs.	Kw.hrs.		
P. E. Island	8,075	8.68	56.31	5.45	1,033	90	38.03	0.17
Nova Scotia	102,837	16.19	33.92	3.14	1,079	175	16.50	2.23
New Brunswick	80,270	15.96	34.97	4.14	844	135	11.95	1.36
Quebec	681,967	17.98	25.72	2.11	1,218	219	4.35	16.66
Ontario	969,234	22.56	33.45	1.16	2,889	652	18.32	56.17
Manitoba	119,574	15.80	49.21	1.06	4,628	731	26.83	11.10
Saskatchewan	80,614	9.44	45.59	4.09	1,115	105	11.25	1.80
Alberta	108,717	12.85	36.79	3.72	989	127	14.75	2.16
British Columbia	246,025	22.74	38.75	2.30	1,686	383	21.99	8.32
Yukon & N.W.T.	1,534	6.39	78.00	9.32	837	54	4.12	0.03
Canada	2,398,847	18.62	33.32	1.60	2,078	387	12.24	100.00

(1) Includes Farm Customers.

(2) Including line and transformer losses.



TABLE 1 - COMPARATIVE SUMMARY, 1939-1948

PRINCIPAL DATA BY CLASS OF STATION	1948	1947	1946	1945	1944
<b>ELECTRIC POWER PLANTS</b>					
Total .....	635	607	600	600	626
Hydraulic .....	309	310	305	302	320
Fuel .....	326	297	295	298	306
Commercial .....	393	377	397	392	424
Municipal .....	242	230	203	208	202
<b>CAPITAL</b>	Data not collected				
Total .....					
Commercial .....					
Municipal .....					
Generating .....					
Non-generating .....					
<b>REVENUE (1)</b>		(4)			
Total .....	257,377,490	243,705,976	226,096,273	215,105,473	215,246,391
Commercial .....	119,032,951	114,639,557	108,668,772	101,672,511	104,986,232
Municipal .....	138,344,539	129,066,419	117,427,501	113,432,962	110,290,159
Generating .....	224,985,155	213,904,209	192,214,412	183,227,695	185,574,224
Non-generating .....	32,394,335	29,801,767	33,881,861	31,877,788	29,672,167
<b>EXPENSES (2)</b>		(4)			
Total .....	180,210,931	177,359,696	156,708,176	135,104,091	131,289,947
Commercial .....	70,316,885	67,279,703	67,664,274	60,893,580	60,470,374
Municipal .....	109,894,046	110,079,993	89,043,902	74,210,511	70,819,573
Generating .....	120,881,466	122,714,865	100,708,644	83,336,610	79,913,496
Non-generating .....	59,321,465	54,644,831	55,999,332	51,767,481	51,376,451
<b>POLE LINE MILEAGE</b>					
Total .....	113,722	98,530	89,231	83,178	80,073
Commercial .....	41,562	35,891	33,184	31,117	30,877
Municipal .....	72,160	62,639	56,047	52,061	49,196
Generating .....	91,121	79,761	71,936	66,694	63,665
Non-generating .....	22,601	18,769	17,295	16,484	16,408
<b>CUSTOMERS</b>					
Total .....	2,822,027	2,643,327	2,476,830	2,333,230	2,238,023
Domestic service (3) .....	2,396,847	2,246,253	2,104,549	1,987,360	1,906,452
Commercial light .....	349,673	326,988	306,592	285,402	273,451
Power (small) .....	85,210	53,604	50,254	46,955	45,284
Power (large) .....	12,305	12,825	11,846	10,955	10,376
Power (municipal) .....	890	858	887	-	-
Street lighting .....	3,102	2,819	2,702	2,558	2,460
Commercial stations .....	937,385	870,408	826,091	766,554	753,239
Municipal stations .....	1,888,642	1,772,919	1,650,739	1,566,676	1,484,784
Generating stations .....	1,741,055	1,616,520	1,354,763	1,256,095	1,195,778
Non-generating stations .....	1,080,972	1,026,807	1,122,067	1,077,135	1,042,245
<b>WATERSHED ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	42,389,681	43,424,799	41,736,987	40,130,054	40,598,779
Commercial .....	25,697,293	27,665,524	26,997,716	25,530,857	25,688,580
Municipal .....	16,692,388	15,759,275	14,739,271	14,599,197	14,910,199
Exports to the United States .... (Thousands) ... Kw.h	1,743,108	2,066,487	2,481,631	2,646,435	2,585,511
Imports from the United States .. (Thousands) ... Kw.h	86,391	53,037	9,527	15,916	14,097
<b>EQUIPMENT IN GENERATING STATIONS (Main Plant only)</b>					
Total Primary Power .....	10,039,541	9,601,157	9,825,459	9,666,947	9,713,791
Total in commercial stations .....	6,045,218	5,936,125	6,301,996	6,294,121	6,373,523
Total in municipal stations .....	3,994,323	3,665,032	3,523,463	3,372,826	3,340,268
Total Secondary Power .....	8,379,039	7,984,488	8,162,898	8,035,767	8,073,864
Total in commercial stations .....	5,064,811	4,950,862	5,233,480	5,227,037	5,290,874
Total in municipal stations .....	3,314,228	3,033,626	2,929,416	2,808,730	2,782,990
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	181,055	184,930	176,253	173,312	185,117
Secondary power .....	135,470	154,199	149,462	146,556	157,866

- (1) Cost of power interchanged between stations excluded from revenue of purchasing stations (see page 8).  
 (2) Includes wages, cost of power, fuel and taxes, but not other expenses.  
 (3) Farm service is included with domestic service.  
 (4) Revised.



TABLEAU 1 - SOMMAIRE COMPARATIF, 1939-1948

1943	1942	1941	1940	1939	DONNEES PRINCIPALES PAR CLASSES D'USINES
622 322 300 425 197	616 320 296 428 188	607 313 294 424 183	602 313 289 421 181	611 313 298 427 184	<u>USINES ELECTRIQUES</u> <u>Total</u> Hydrauliques A combustible Commerciales Municipales
1,778,224,640 1,149,225,710 628,998,930 1,584,624,501 193,600,139	1,747,891,798 1,127,978,332 619,913,466 1,559,495,388 188,396,410	1,641,460,451 1,054,714,025 586,746,426 1,459,900,540 181,559,911	1,615,438,140 1,049,506,904 565,931,236 1,440,026,870 175,411,270	1,564,603,211 1,014,704,565 549,898,546 1,396,838,921 167,764,290	<u>CAPITAL</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
204,801,508 124,730,993 80,070,515 175,217,757 29,583,751	203,835,365 124,611,713 79,223,652 173,916,640 29,918,725	186,018,040 111,851,778 74,166,262 157,283,409 28,734,631	166,228,773 99,887,052 66,341,721 139,673,392 26,555,581	151,880,969 92,536,049 59,345,920 127,483,222 24,397,747	<u>RECETTES (1)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
135,555,469 72,579,621 62,975,848 81,500,674 54,054,795	132,581,418 71,133,382 61,448,036 80,171,586 52,409,832	117,758,977 60,561,621 57,197,356 69,148,513 48,310,464	105,044,158 51,990,160 53,053,998 60,752,761 44,291,397	91,982,372 42,471,534 49,510,838 51,570,137 40,412,235	<u>DEPENSES (2)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
78,063 32,085 45,978 61,710 16,353	77,909 31,847 46,062 61,927 15,982	77,253 31,442 45,811 61,495 15,758	75,050 30,933 44,117 59,676 15,374	72,132 30,268 41,844 57,084 15,048	<u>LIGNES SUR POTEAUX</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
2,164,861 1,848,080 259,640 44,948 9,772 - 2,421	2,125,304 1,803,708 264,706 44,813 9,673 - 2,404	2,081,270 1,755,517 268,977 44,071 9,934 - 2,371	2,006,508 1,686,368 265,175 43,138 9,490 - 2,317	1,941,663 1,623,672 262,590 43,896 9,267 - 2,236	<u>ABONNES</u> <u>Total</u> Service domestique (3) Eclairage commercial Force motrice (petite) Force motrice (grosse) Energie (municipale) Eclairage des rues
1,005,516 1,159,545 1,129,272 1,035,589	985,059 1,140,245 1,103,539 1,021,765	954,906 1,126,564 1,079,233 1,002,037	926,093 1,088,415 1,032,433 982,075	889,418 1,052,245 998,067 943,596	Usines commerciales Usines municipales Usines génératrices Usines non-génératrices
40,479,593 31,082,239 9,397,354	37,355,179 28,177,387 9,177,792	33,317,663 24,795,715 8,523,948	30,109,283 22,287,270 7,822,013	28,338,030 21,290,930 7,047,100	<u>ENERGIE ELECTRIQUE GENEREE</u> <u>Total Kw. heures générés (milliers)</u> Commerciale Municipale
2,545,038 599	2,453,739 594	2,354,229 670	2,132,129 655	1,908,756 666	Exportations d'électricité aux Etats-Unis ..... (milliers) Kw.h. Importations d'électricité des Etats-Unis ..... (milliers) Kw.h.
9,632,794 7,239,936 2,362,858 7,982,027 6,074,895 1,907,132	8,613,696 6,269,386 2,344,310 7,256,927 5,366,769 1,890,158	8,157,585 5,917,160 2,240,425 6,851,785 5,054,727 1,797,058	7,935,967 5,708,664 2,227,202 6,691,211 4,906,268 1,784,943	7,607,122 5,565,652 2,221,490 6,435,416 4,654,745 1,780,671	<u>MACHINERIE DANS LES USINES GENERATRICES</u> (Usines principales seulement) <u>Total force motrice primaire</u> ..... H. P. <u>Total dans les usines commerciales</u> ... H. P. <u>Total dans les usines municipales</u> .... H. P. <u>Total force motrice secondaire</u> ..... Kv.A. <u>Total dans les usines commerciales</u> ... Kv.A. <u>Total dans les usines municipales</u> .... Kv.A.
194,822 166,010	194,966 166,236	194,651 166,021	194,914 166,567	194,139 165,785	<u>OUTILLAGE D'USINES AUXILIAIRES</u> Force motrice primaire ..... H. P. Force motrice secondaire ..... Kv.A.

(1) Le coût de l'énergie échangée entre stations est exclu du revenu des stations en faisant l'achat (Voir p. 8).

(2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

(3) L'éclairage des fermes est inclus dans l'éclairage domestique.

(4) Révisé

TABLE 2 - DOMESTIC SERVICE, 1939 - 1948

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	¢
<b>CANADA</b> .....						
1939	1,623,672	2,310,891	43,793,482	1,423	26.97	1.90
1941	1,755,917	2,582,405	48,683,162	1,471	27.73	1.89
1943	1,852,567	2,843,612	51,307,781	1,535	27.70	1.80
1944	1,906,452	3,046,980	53,311,553	1,598	27.96	1.75
1945	1,987,560	3,365,497	55,735,696	1,693	28.05	1.66
1946	2,104,549	3,881,677	62,820,120	1,844	29.85	1.62
1947	2,246,253	4,383,222	70,258,591	1,951	31.28	1.60
1948	2,398,847	4,984,280	79,920,367	2,078	33.32	1.60
Change (Changement) 1939- 1948						
Amount (Volume)	775,175	2,673,389	36,126,885	655	6.35	- 0.30
Per cent (p.c.)	47.74	115.69	82.49	46.03	23.54	-15.79
<b>PRINCE EDWARD ISLAND</b> .....						
1939	5,067	2,908	163,226	574	32.21	5.61
1941	5,531	3,483	183,090	630	33.10	5.26
1943	5,715	3,895	217,914	682	38.13	5.59
1944	6,103	4,579	230,596	750	37.78	5.04
1945	6,387	5,217	238,538	817	37.35	4.57
1946	6,882	6,017	274,082	874	39.83	4.56
1947	7,372	6,917	369,805	938	50.16	5.35
1948	8,075	8,341	454,741	1,033	56.31	5.45
Change (Changement) 1939- 1948						
Amount (Volume)	3,008	5,433	291,515	459	24.10	- 0.16
Per cent (p.c.)	59.36	186.83	178.60	79.97	74.82	- 2.85
<b>NOVA SCOTIA</b> .....						
1939	62,034	39,084	1,709,507	630	27.56	4.37
1941	69,997	48,357	2,065,057	691	29.50	4.27
1943	75,957	57,324	2,156,852	755	28.40	3.76
1944	79,904	63,516	2,439,703	795	30.53	3.84
1945	84,011	70,099	2,286,358	834	27.21	3.26
1946	89,484	82,696	2,660,287	924	29.73	3.22
1947	96,231	94,135	2,923,631	978	30.38	3.11
1948	102,837	110,981	3,488,141	1,079	33.92	3.14
Change (Changement) 1939- 1948						
Amount (Volume)	40,803	71,897	1,778,634	449	6.36	- 1.23
Per cent (p.c.)	65.78	183.96	104.04	71.27	23.08	- 28.15
<b>NEW BRUNSWICK</b> .....						
1939	46,485	26,989	1,307,772	581	28.13	4.85
1941	52,831	31,234	1,435,015	591	27.16	4.59
1943	56,289	35,294	1,661,550	628	29.54	4.71
1944	58,860	39,441	1,767,380	670	30.03	4.48
1945	62,175	45,958	1,883,374	739	30.29	4.10
1946	67,479	51,377	2,076,400	761	30.77	4.04
1947	74,854	63,728	2,484,545	851	33.19	3.90
1948	80,270	67,749	2,806,668	844	34.97	4.14
Change (Changement) 1939- 1948						
Amount (Volume)	33,785	40,760	1,498,896	263	6.84	- 0.71
Per cent (p.c.)	72.68	151.02	114.61	45.27	24.32	- 14.64
<b>QUEBEC</b> .....						
1939	434,825	311,420	9,167,384	716	21.08	2.94
1941	473,547	342,627	10,100,300	724	21.33	2.95
1943	507,765	398,305	10,791,660	784	21.25	2.71
1944	530,396	446,142	11,304,901	841	21.31	2.53
1945	558,865	507,274	11,325,494	908	21.34	2.35
1946	590,125	596,693	13,401,463	1,011	22.71	2.25
1947	631,597	692,335	15,156,347	1,096	24.00	2.19
1948	681,967	830,445	17,537,147	1,218	25.72	2.11
Change (Changement) 1939- 1948						
Amount (Volume)	247,142	519,025	8,369,763	502	4.64	- 0.85
Per cent (p.c.)	56.84	166.66	91.30	70.11	22.01	- 28.23



TABLEAU 2 - SERVICE DOMESTIQUE, 1939 - 1948

Year Année	Number of Customers Nombre d'usagers	Kilowatt Hours Consumed Kilowatt heures consommées	Revenue Recettes	Kw. Hours per Customer Consommation moyenne annuelle par usager	Average Annual Bill Compte moyen de l'année	Revenue per Kilowatt Hour Moyenne par kilowatt heure
		(000)	\$	kw.hrs.	\$	\$
<b>ONTARIO</b> .....						
1939	719,871	1,374,325	19,657,658	1,909	27.31	1.43
1941	772,153	1,546,189	21,980,031	2,002	28.47	1.42
1943	801,430	1,682,562	23,000,644	2,040	28.70	1.37
1944	813,356	1,787,359	23,239,991	2,198	28.57	1.30
1945	839,968	1,963,043	23,699,446	2,337	28.21	1.21
1946	876,761	2,269,006	26,314,259	2,587	30.01	1.16
1947	918,770	2,533,594	29,046,165	2,758	31.61	1.15
1948	969,234	2,799,781	32,421,793	2,889	33.45	1.16
Change (Changement) Amount (Volume) Per cent (p.c.)	249,363 34.64	1,425,456 103.72	12,764,135 64.93	980 51.34	6.14 22.48	- 0.27 - 18.88
<b>MANITOBA</b> .....						
1939	81,091	320,827	3,311,662	3,956	40.84	1.03
1941	85,106	343,041	3,472,277	4,031	40.80	1.01
1943	88,528	374,169	3,712,351	4,226	41.93	.99
1944	92,073	389,865	3,871,419	4,234	42.05	.99
1945	94,673	416,499	4,237,484	4,399	44.76	1.02
1946	103,204	457,464	4,680,853	4,433	45.36	1.02
1947	116,570	501,744	5,414,994	4,304	46.45	1.08
1948	119,574	553,430	5,883,853	4,628	49.21	1.06
Change (Changement) Amount (Volume) Per cent (p.c.)	38,483 47.46	232,603 72.50	2,572,191 77.67	672 16.99	8.37 20.49	+ 0.03 + 2.91
<b>SASKATCHEWAN</b> .....						
1939	49,980	41,198	2,004,433	824	40.10	4.87
1941	52,695	45,448	2,173,255	862	41.24	4.78
1943	55,500	48,996	2,257,885	883	40.68	4.61
1944	58,089	52,724	2,397,702	908	41.28	4.55
1945	61,285	58,402	2,565,796	953	41.87	4.39
1946	67,336	68,530	2,940,165	1,018	43.66	4.29
1947	73,625	76,152	3,248,282	1,034	44.12	4.27
1948	80,614	89,871	3,675,447	1,115	45.59	4.09
Change (Changement) Amount (Volume) Per cent (p.c.)	30,634 61.29	48,673 118.14	1,671,014 83.37	291 35.32	5.49 13.69	- 0.78 - 16.02
<b>ALBERTA</b> .....						
1939	68,267	42,210	2,145,093	618	31.42	5.08
1941	72,422	47,572	2,393,189	657	33.05	5.03
1943	77,810	52,100	2,514,031	670	32.31	4.83
1944	81,652	56,977	2,698,155	698	33.04	4.74
1945	87,005	63,962	2,932,410	735	33.70	4.59
1946	92,461	75,756	3,166,731	819	34.25	4.18
1947	100,134	88,366	3,472,789	882	34.68	3.93
1948	108,717	107,548	3,999,670	989	36.79	3.72
Change (Changement) Amount (Volume) Per cent (p.c.)	40,450 59.25	65,338 154.79	1,854,577 86.46	371 60.03	5.37 17.09	- 1.36 - 26.77
<b>BRITISH COLUMBIA</b> .....						
1939	156,052	151,930	4,326,747	974	27.73	2.85
1941	171,635	174,454	4,880,948	1,016	28.44	2.80
1943	179,136	190,967	4,994,894	1,066	27.88	2.62
1944	186,019	206,377	5,361,506	1,109	28.82	2.60
1945	192,991	235,043	5,966,796	1,218	30.92	2.54
1946	210,817	274,138	7,305,880	1,300	34.66	2.67
1947	227,100	326,251	8,142,033	1,437	35.85	2.50
(B.C. only) - 1948	246,025	414,850	9,533,260	1,686	38.75	2.30
Change (Changement) Amount (Volume) Per cent (p.c.)	89,973 57.66	262,920 173.05	5,206,513 120.33	712 73.10	11.02 39.74	- 0.55 - 19.30
<b>* YUKON AND NORTHWEST TERRITORIES</b> 1948	1,534	1,284	119,647	837	78.00	9.32

\* Included with British Columbia up to and including 1947.  
\* Compris dans Colombie-Britannique jusqu'à 1947 inclus.



TABLE 3 - ELECTRIC POWER PLANTS, 1948

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
<u>Total number of generating stations</u> .....	635	9	46	18
Per cent of total for Canada .....	100.00	1.42	7.24	2.84
<u>COMMERCIAL</u> .....	393	8	18	6
Hydraulic .....	181	4	11	4
Fuel .....	212	4	7	2
<u>MUNICIPAL</u> .....	242	1	28	12
Hydraulic .....	126	-	22	3
Fuel .....	114	1	6	9
With water wheels and turbines .....	309	4	33	7
With steam engines only .....	14	-	-	1
With steam turbines only .....	29	1	6	3
With gas or oil engines only .....	276	4	5	6
With both steam engines and turbines .....	5	-	1	1
With both steam and gas or oil engines .....	2	-	1	-
With alternating current dynamos only .....	514	8	46	17
With direct current dynamos only .....	109	1	-	1
With both alternating and direct current dynamos	12	-	-	-
<u>COMMERCIAL ORGANIZATIONS</u> .....	X 394	5	16	16
Number generating power .....	269	5	10	6
Number buying power for redistribution .....	125	-	6	9
<u>MUNICIPALITIES</u> .....	X 480	1	21	11
Number generating power .....	77	1	7	2
Number buying power for redistribution .....	403	-	14	9
<u>AUXILIARY PLANTS</u> .....	53	2	1	6
To hydraulic stations .....	44	2	1	1
To non-generating stations .....	9	-	-	5

X - Organisations operating in two or more provinces are shown under provinces, but are included in total as only one organization.

■ - Included with British Columbia up to and including 1947.

TABIEAU 3 - USINES GÉNÉRATRICES, 1948

Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Yukon and Northwest Territories	
99	123	15	142	98	81	4	<u>Nombre d'usines génératrices</u>
15.59	19.37	2.36	22.36	15.43	12.76	0.63	<u>Pourcentage du total pour le Canada</u>
77	47	10	83	88	52	4	<u>COMMERCIALES</u>
71	42	3	1	13	30	2	Hydrauliques
6	5	7	82	75	22	2	A Combustible
22	76	5	59	10	29	-	<u>MUNICIPALES</u>
20	69	3	-	-	11	-	Hydrauliques
2	7	2	59	10	18	-	A combustible
91	111	6	1	13	41	2	Avec roues et turbines hydrauliques
1	3	1	-	4	4	-	Avec machines à vapeur seulement
1	1	-	6	4	7	-	Avec turbines à vapeur seulement
6	8	8	134	76	27	2	Avec moteurs à gaz ou à pétrole seulement
-	-	-	1	1	1	-	Avec machines et turbines à vapeur à la fois
-	-	-	-	-	1	-	Avec machines à vapeur à gaz et à pétrole
98	121	14	70	63	73	4	Avec dynamos à courant alternatif seulement
1	2	1	70	28	5	-	Avec dynamos à courant direct seulement
-	-	-	2	7	3	-	Avec dynamos à courant alternatif et direct
71	66	15	86	75	50	7	<u>USINES COMMERCIALES</u>
34	32	9	83	58	36	4	Nombre d'usines génératrices
37	34	6	3	17	14	3	Nombre d'usines achetant de l'électricité pour la revendre
36	335	9	33	16	24	-	<u>MUNICIPALITES</u>
14	12	4	25	8	10	-	Nombre d'usines génératrices
22	323	5	8	8	14	-	Nombre d'usines achetant de l'électricité pour la revendre
11	8	2	-	8	14	1	<u>USINES AUXILIAIRES</u>
10	7	1	-	8	14	-	Aux usines hydrauliques
1	1	1	-	-	-	1	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.  
 \* - Compris dans Colombie-Britannique jusqu'à 1947 inclus.

TABLE 4 - REVENUE, 1948 <sup>g</sup>

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	257,377,490	798,932	10,053,388	4 6,514,448	4 96,312,283
For domestic service .....	79,920,367	454,741	3,488,141	2,806,668	17,537,147
For commercial light .....	42,869,215	174,625	1,946,492	1,174,106	11,205,749
For power (small) .....	12,919,739	50,273	1,153,250	353,663	2,868,427
For power (large) .....	111,557,496	36,237	3,153,969	1,982,523	62,491,227
For power (municipal) .....	4,447,978	65,888	50,492	34,702	890,706
For street lighting .....	5,662,695	17,168	241,044	162,786	1,319,027
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	119,032,951	627,710	7,024,462	2,375,199	64,178,978
Non-generating .....	3,282,655	-	804,847	653,104	311,137
Generating .....	115,750,296	627,710	6,219,615	1,722,095	63,867,859
Hydraulic .....	106,224,617	28,491	1,441,324	1,570,526	63,719,934
Fuel .....	9,525,679	599,219	4,778,291	151,569	147,905
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	136,344,539	171,222	3,008,926	4,139,249	32,133,307
Non-generating .....	29,111,680	-	410,019	648,830	999,801
Generating .....	109,232,859	171,222	2,598,907	3,490,419	31,133,506
Hydraulic .....	94,253,584	-	2,332,870	193,034	31,098,716
Fuel .....	14,979,275	171,222	266,037	3,297,385	34,790
Revenue of non-generating stations .....	32,394,335	-	1,214,866	1,301,934	1,310,938
Revenue of generating stations .....	224,983,155	798,932	8,818,522	5,212,514	95,001,345
Revenue of hydraulic stations .....	200,478,201	28,491	3,774,194	1,763,560	94,818,650
Revenue of fuel stations .....	24,504,954	770,441	5,044,328	3,448,954	182,695
Average revenue per H.P. of primary power .....	25.64	78.88	48.24	34.90	17.37
Average revenue per H.P. in main and auxiliary plants ...	25.18	75.88	47.77	33.59	17.24
Average revenue per Kv.A. of dynamo capacity .....	30.72	103.87	57.23	40.52	20.46
Average revenue per Kv.A. in main and auxiliary plants ..	30.23	100.44	56.70	39.11	20.30
Average revenue per domestic service customer .....	33.32	56.31	33.92	34.97	25.72
Average revenue per commercial light customer .....	122.60	113.17	117.93	112.20	120.03
Average revenue per small power customer .....	229.85	326.45	364.26	228.52	215.12
Average revenue per large power customer .....	8,384.63	6,039.50	12,038.05	14,060.45	34,185.57
Average revenue per kilowatt hour consumed ..... Cents	0.63	3.64	1.49	1.15	0.50
Average revenue per kilowatt hour - domestic and farm service .. Cents	1.60	5.45	3.14	4.14	2.11
Average revenue per kilowatt hour - commercial light *	1.99	4.21	3.38	3.13	2.00

<sup>h</sup> Affected by power purchased from other province.

<sup>i</sup> Adjusted for power purchased from Quebec plants.

<sup>g</sup> Gross revenue less cost of power interchanged between stations.

\* Included with British Columbia up to and including 194



TABLEAU 4 - RECETTES, 1948 <sup>6</sup>

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon & North-west Territories	
\$	\$	\$	\$	\$	\$	
97,865,223	15,462,467	10,289,157	12,136,697	24,482,338	477,217	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
32,421,793	5,883,853	3,675,447	3,999,670	9,533,260	119,647	Pour éclairage domestique
12,281,771	2,960,041	2,609,378	3,403,085	7,010,703	103,265	Pour éclairage commercial
4,160,101	664,537	1,096,660	1,326,013	1,221,584	25,251	Pour force motrice (petite)
43,802,655	3,461,498	2,352,632	2,877,713	6,172,853	220,849	Pour force motrice (grosse)
2,755,228	185,542	210,915	199,474	55,031	-	Pour pouvoir municipal
2,443,675	306,996	344,125	330,742	488,907	8,225	Pour éclairage des rues
12,272,105	6,440,065	2,017,355	6,405,928	20,399,255	477,217	<u>RECETTES DES USINES COMMERCIALES</u>
2,827,418	441,999	6,094	160,078	140,037	78,630	Non-génératrices
9,444,687	5,998,064	2,011,261	6,245,850	20,259,218	398,587	Génératrices
9,142,072	5,877,296	817,691	4,471,696	19,914,592	285,625	Hydrauliques
302,615	120,768	1,193,570	1,774,154	344,626	112,962	A combustible
85,593,118	7,022,404	8,271,802	5,730,769	4,083,083	-	<u>RECETTES DES USINES MUNICIPALES</u>
20,294,318	2,478,421	1,194,161	2,055,227	1,105,249	-	Non-génératrices
65,298,800	4,543,983	7,077,641	3,675,542	2,977,834	-	Génératrices
65,163,861	4,459,126	-	-	2,735,427	-	Hydrauliques
134,939	84,857	7,077,641	3,675,542	242,407	-	A combustible
23,121,736	2,920,420	1,200,255	2,215,305	1,245,286	78,630	Recettes des usines non-génératrices
74,743,487	10,542,047	9,088,902	9,921,392	23,237,052	398,587	Recettes des usines génératrices
74,305,933	10,336,422	817,691	4,471,696	22,650,019	285,625	Recettes des usines hydrauliques
437,554	205,625	8,271,211	5,449,696	587,033	112,962	Recettes des usines à combustible
X 25.66	28.69	35.16	54.73	50.49	17.76	Moyenne de recettes par H.P. de machinerie primaire
X 25.34	27.75	35.16	50.42	46.04	16.76	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
X 32.77	35.65	41.58	62.51	59.47	23.27	Moyenne de recettes par Kv.A. de capacité de dynamos
X 32.36	34.30	41.58	57.57	56.67	21.68	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
33.45	49.21	45.59	36.79	38.75	78.00	Moyenne de recettes par abonnés d'éclairage domestique
100.64	137.12	127.36	139.82	179.43	368.80	Moyenne de recettes par abonnés d'éclairage commercial
259.60	135.21	511.20	173.20	208.85	663.97	Moyenne de recettes par abonnés pour petite force motrice
10,879.94	726.29	5,070.33	3,958.34	5,845.50	7,615.48	Moyenne de recettes par abonnés pour grosse force motrice
0.66	0.65	1.29	1.66	1.30	1.55	Moyenne de recettes par Kw. heure ..... (cents)
1.16	1.06	4.09	3.72	2.30	9.32	Moyenne de recettes par Kw. heure-service domestique et de ferme ..... (cents)
1.29	1.92	4.38	3.77	2.92	7.75	Moyenne de recettes par Kw. heure-service commercial (cents)

6 Affecté par énergie achetée d'une autre province.

X Adjusté pour achats de courant des usines du Québec.

6 Revenu brut moins le coût de l'énergie échangée entre stations.

\* Compris dans Colombie-Britannique jusqu'à 1947 inclus.

TABLE 5 - EXPENSES, 1948

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
<b>TOTAL EXPENSE</b> .....	180,210,951	525,769	9,605,295	5,378,965	49,905,183
Per cent of total for Canada .....	100.00	0.29	5.33	2.98	27.69
Salaries and wages .....	68,765,222	209,539	3,169,311	1,945,278	17,721,694
Fuel .....	8,414,235	260,205	2,198,307	1,214,678	123,464
Taxes (x) .....	25,428,014	54,025	866,176	245,191	16,448,564
Cost of power .....	77,605,460	-	5,371,501	1,975,818	15,611,461
<b>TOTAL FOR COMMERCIAL STATIONS</b> .....	70,516,885	435,600	7,301,251	1,554,280	54,870,753
Salaries and wages .....	26,849,962	175,170	2,384,077	568,740	12,910,768
Fuel .....	4,101,470	204,405	2,038,421	18,750	93,718
Taxes (x) .....	19,602,431	54,025	800,386	166,073	12,429,526
Cost of power .....	19,763,022	-	2,078,367	1,000,717	9,436,741
Non-generating stations .....	6,226,180	-	1,124,968	1,258,030	507,095
Generating stations .....	64,090,705	435,600	6,176,283	296,250	54,563,658
Hydraulic stations .....	55,832,450	17,317	819,739	266,220	54,599,165
Fuel stations .....	8,258,255	416,283	5,356,544	50,030	164,493
<b>TOTAL FOR MUNICIPAL STATIONS</b> .....	109,894,046	90,169	2,304,044	3,824,685	15,034,430
Salaries and wages .....	41,915,260	34,369	785,234	1,576,538	4,810,926
Fuel .....	4,312,765	55,800	159,886	1,195,928	29,746
Taxes (x) .....	5,825,583	-	65,790	79,118	4,019,058
Cost of power .....	57,840,438	-	1,293,134	973,101	6,174,720
Non-generating stations .....	53,095,285	-	1,237,169	943,958	890,045
Generating stations .....	56,798,761	90,169	1,066,875	2,880,727	14,144,385
Hydraulic stations .....	48,077,237	-	618,873	94,672	14,131,209
Fuel stations .....	8,721,524	90,169	448,002	2,786,055	15,176
<b>TOTAL EXPENSES FOR NON-GENERATING STATIONS</b> .....	59,321,465	-	2,362,137	2,201,988	1,197,140
Salaries and wages .....	14,624,329	-	595,962	396,520	393,323
Fuel .....	18,690	-	-	4,432	-
Taxes (x) .....	971,988	-	150,912	92,316	8,997
Cost of power .....	43,706,458	-	1,615,263	1,708,720	794,820
<b>TOTAL EXPENSES FOR GENERATING STATIONS</b> .....	120,889,466	525,769	7,243,158	3,176,977	48,708,043
Salaries and wages .....	54,140,893	209,539	2,573,349	1,548,758	17,328,371
Fuel .....	8,395,545	260,205	2,198,307	1,210,246	123,464
Taxes (x) .....	24,456,026	54,025	715,264	152,875	16,439,567
Cost of power .....	33,897,002	-	1,756,238	265,098	14,816,641
Hydraulic stations .....	103,909,687	17,317	1,438,612	360,892	48,530,374
Fuel stations .....	16,979,779	506,452	5,804,546	2,816,085	177,669

(x) Sales tax not included (see page 8).

† Includes only the four items listed.

‡ Previous years overstated due to including cost of power from subsidiaries by British Columbia Electric Railway Company now consolidated. 1947 total overstated by \$4,776,349.

■ Included with British Columbia up to and including 1947.



TABLEAU 5 - <sup>1</sup> DEPENSES, 1948

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories <sup>2</sup>	
\$	\$	\$	\$	\$	\$	
85,689,489	5,977,768	5,570,351	6,516,153	12,845,818	198,140	<u>TOTAL DES DEPENSES</u>
46.44	3.32	3.09	3.62	7.13	0.11	Pourcentage du total pour le Canada
29,245,333	4,374,953	2,102,947	2,634,507	7,262,032	99,628	Salaires et gages
340,734	86,432	2,078,316	1,157,839	928,154	26,106	Combustible
3,023,502	309,539	225,771	1,107,651	3,136,463	11,132	Taxes (x)
51,079,920	1,206,844	1,163,317	1,616,156	1,519,169	61,274	Achat d'énergie électrique
9,769,360	1,980,018	886,761	3,220,133	10,102,589	198,140	<u>TOTAL POUR LES USINES COMMERCIALES</u>
2,160,111	1,149,756	418,131	1,613,324	5,570,257	99,628	Salaires et gages
245,214	29,223	318,731	453,503	673,399	26,106	Combustible
1,919,533	168,224	145,010	829,388	3,079,134	11,132	Taxes (x)
5,444,502	632,815	4,889	323,918	779,799	61,274	Achat d'énergie électrique
2,522,697	678,534	8,209	73,355	157,211	96,081	Usines non-génératrices
7,246,663	1,301,484	878,552	3,146,778	9,945,378	102,059	Usines génératrices
7,008,333	1,236,297	294,534	1,968,819	9,783,910	38,116	Usines hydrauliques
238,330	65,187	584,018	1,177,959	161,468	63,943	Usines à combustible
75,920,129	3,997,750	4,683,590	3,296,020	2,743,229	-	<u>TOTAL POUR LES USINES MUNICIPALES</u>
27,085,222	3,225,197	1,684,816	1,021,183	1,691,775	-	Salaires et gages
95,520	57,209	1,759,585	704,336	254,755	-	Combustible
1,103,969	141,315	80,761	278,263	57,329	-	Taxes (x)
45,635,418	574,029	1,158,428	1,292,238	739,370	-	Achat d'énergie électrique
44,000,288	2,149,959	1,164,990	1,841,749	867,127	-	Usines non-génératrices
29,919,841	1,847,791	3,518,600	1,454,271	1,876,102	-	Usines génératrices
29,853,474	1,801,067	-	-	1,577,942	-	Usines hydrauliques
66,367	46,724	3,518,600	1,454,271	298,160	-	Usines à combustible
46,522,985	2,828,493	1,173,199	1,915,104	1,024,338	96,081	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
10,780,615	1,590,977	153,461	434,751	250,709	28,011	Salaires et gages
13,832	-	-	-	-	426	Combustible
451,747	30,672	80,635	138,975	11,364	6,370	Taxes (x)
35,276,791	1,206,844	939,103	1,341,378	762,265	61,274	Achat d'énergie électrique
37,166,504	3,149,275	4,397,152	4,601,049	11,821,480	102,059	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
18,464,718	2,783,976	1,949,486	2,199,756	7,011,323	71,617	Salaires et gages
326,902	86,432	2,078,316	1,157,839	928,154	25,680	Combustible
2,571,755	278,867	145,136	968,676	3,125,099	4,762	Taxes (x)
15,803,129	-	224,214	274,778	756,904	-	Achat d'énergie électrique
36,861,807	3,037,364	294,534	1,968,819	11,361,852	38,116	Usines hydrauliques
304,697	111,911	4,102,618	2,632,230	459,628	63,943	Usines à combustible

<sup>1</sup> Ne comprend que les quatres items énumérés.

(x) Taxe des ventes non comprises (Voir p. 8).

<sup>2</sup> Les chiffres des années précédentes sont trop élevés, parce que la British Columbia Electric Railway Company, aujourd'hui consolidée, avait inclus le coût de l'énergie produite par ses filiales. La majoration du total de 1947 est de \$4,778,349.

<sup>3</sup> Compris dans Colombie-Britannique jusqu'à 1947 inclus.



TABLE 6 - EMPLOYEES, 1948

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	29,349	113	1,595	799	7,803
Per cent of total for Canada .....	100.00	0.39	5.43	2.72	26.59
Officers, clerks, other salaried employees, etc.	9,033	30	555	167	2,163
Employees on wages .....	20,316	83	1,040	632	5,640
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	11,559	91	1,081	208	5,830
Officers, clerks, other salaried employees, etc.	3,225	25	327	44	1,330
Employees on wages .....	8,334	66	754	164	4,500
Non-generating .....	584	-	191	118	101
Generating .....	10,975	91	890	90	5,729
Hydraulic .....	9,734	7	311	85	5,638
Fuel .....	1,241	84	579	5	91
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	17,790	22	514	591	1,973
Officers, clerks, other salaried employees, etc.	5,808	5	228	123	833
Employees on wages .....	11,982	17	286	468	1,140
Non-generating .....	6,303	-	129	107	140
Generating .....	11,487	22	385	484	1,833
Hydraulic .....	9,972	-	355	33	1,829
Fuel .....	1,515	22	30	451	4
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	6,887	-	320	225	241
Officers, clerks, other salaried employees, etc.	2,523	-	94	96	77
Employees on wages .....	4,364	-	226	129	164
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	22,462	113	1,275	574	7,562
Officers, clerks, other salaried employees, etc.	6,510	30	461	71	2,086
Employees on wages .....	15,952	83	814	503	5,476
Hydraulic .....	19,706	7	666	118	7,467
Fuel .....	2,756	106	609	456	95

\* Included with British Columbia up to and including 1947.

TABLEAU 6 - EMPLOYÉS, 1948

Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Yukon and Northwest Territories	
11,959	2,201	944	1,210	2,698	27	<u>TOTAL DU PERSONNEL OCCUPE</u>
40.75	7.50	3.22	4.12	9.19	0.09	Pourcentage du total pour le Canada
3,896	645	242	360	964	11	Administrateurs, directeurs, commis et tous employés des bureaux
8,063	1,556	702	850	1,734	16	Ouvriers et journaliers
895	491	178	767	1,991	27	<u>PERSONNEL DES USINES COMMERCIALES</u>
214	203	80	210	781	11	Administrateurs, directeurs, commis et tous employés des bureaux
681	288	98	557	1,210	16	Ouvriers et journaliers
118	10	4	15	19	8	Non-génératrices
777	481	174	752	1,972	19	Génératrices
763	467	91	429	1,935	8	Hydrauliques
14	14	83	323	37	11	Combustible
11,064	1,710	766	443	707	-	<u>PERSONNEL DES USINES MUNICIPALES</u>
3,682	442	162	150	183	-	Administrateurs, directeurs, commis et tous employés des bureaux
7,382	1,268	604	293	524	-	Ouvriers et journaliers
4,589	980	69	187	102	-	Non-génératrices
6,475	730	697	256	605	-	Génératrices
6,460	712	-	-	583	-	Hydrauliques
15	18	697	256	22	-	Combustible
4,707	990	73	202	121	8	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
1,876	205	36	93	43	3	Administrateurs, directeurs, commis et tous employés des bureaux
2,831	785	37	109	78	5	Ouvriers et journaliers
7,252	1,211	871	1,008	2,577	19	<u>PERSONNEL DES USINES GENERATRICES</u>
2,020	440	206	267	921	8	Administrateurs, directeurs, commis et tous employés des bureaux
5,232	771	665	741	1,656	11	Ouvriers et journaliers
7,223	1,179	91	429	2,518	8	Hydrauliques
29	32	780	579	59	11	Combustible

\* Compris dans Colombie-Britannique jusqu'à 1947 inclus.

TABLE 7 - NUMBER OF CUSTOMERS, 1948

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>NUMBER OF CUSTOMERS</u> .....	2,822,027	9,807	122,895	92,496	791,761
Per cent of total for Canada .....	100.00	0.35	4.35	3.28	28.05
Domestic service .....	2,398,847	8,075	102,837	80,270	681,967
Commercial light .....	349,673	1,543	16,505	10,464	93,358
Power (small) .....	56,210	154	3,166	1,549	13,334
Power (large) .....	13,305	6	262	141	1,828
Power (municipal) .....	890	15	20	14	173
Street lighting .....	3,192	14	105	58	1,101
<u>COMMERCIAL STATIONS</u> .....	937,385	7,947	79,811	23,059	409,472
Domestic service .....	791,920	6,507	67,764	19,666	354,046
Commercial light .....	118,573	1,303	9,629	2,866	45,917
Power (small) .....	19,325	106	2,242	427	7,022
Power (large) .....	5,614	5	117	72	1,317
Power (municipal) .....	324	13	5	9	125
Street lighting .....	1,629	13	54	19	1,045
Non-generating .....	92,877	-	28,412	19,265	10,279
Generating .....	844,508	7,947	51,399	3,794	399,193
Hydraulic .....	759,818	526	16,456	3,792	396,686
Fuel .....	84,690	7,421	34,943	2	2,507
<u>MUNICIPAL STATIONS</u> .....	1,884,642	1,860	43,084	69,437	382,289
Domestic service .....	1,606,927	1,568	35,073	60,604	327,921
Commercial light .....	231,100	240	6,876	7,598	47,441
Power (small) .....	36,885	48	924	1,122	6,312
Power (large) .....	7,691	1	145	69	511
Power (municipal) .....	566	2	15	5	48
Street lighting .....	1,473	1	51	39	56
Non-generating .....	988,095	-	19,587	27,307	30,181
Generating .....	896,547	1,860	23,497	42,130	352,108
Hydraulic .....	724,221	-	18,782	2,750	351,655
Fuel .....	172,326	1,860	4,715	39,380	453
<u>NON-GENERATING STATIONS</u> .....	1,080,972	-	47,999	46,572	40,460
Domestic service .....	921,322	-	41,383	39,733	36,088
Commercial light .....	132,343	-	5,388	5,726	3,625
Power (small) .....	22,318	-	1,073	1,019	581
Power (large) .....	3,670	-	112	62	79
Power (municipal) .....	514	-	6	12	18
Street lighting .....	805	-	37	20	69
<u>GENERATING STATIONS</u> .....	1,741,055	9,807	74,896	45,924	751,301
Hydraulic stations .....	1,484,039	526	35,238	6,542	748,341
Domestic service .....	1,274,326	427	28,731	5,520	643,611
Commercial light .....	173,589	95	5,708	848	89,072
Power (small) .....	25,596	3	637	133	12,733
Power (large) .....	8,709	-	97	31	1,749
Power (municipal) .....	214	-	12	2	155
Street lighting .....	1,605	1	53	8	1,021
Fuel stations .....	257,016	9,281	39,658	39,382	2,960
Domestic service .....	203,199	7,648	32,723	35,017	2,268
Commercial light .....	43,741	1,448	5,409	3,890	661
Power (small) .....	8,296	151	1,456	397	20
Power (large) .....	926	6	53	48	-
Power (municipal) .....	162	15	2	-	-
Street lighting .....	692	13	15	30	11
Average number of domestic service customers per 100 of population .....	18.62	8.68	16.19	15.96	17.98

\* Included with British Columbia up to and including 1947.



TABLEAU 7 - NOMBRE D'USAGERS, 1948

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	
1,112,418	151,158	105,574	141,876	292,155	1,887	<u>NOMBRE D'USAGERS</u>
39.42	5.36	3.74	5.03	10.35	0.07	Pourcentage du total pour le Canada
969,234	119,574	80,614	108,717	246,025	1,534	Service domestique
122,035	21,588	20,489	24,339	39,072	280	Eclairage commercial
16,025	4,915	3,524	7,656	5,849	38	Force motrice (petite)
4,026	4,766	464	727	1,056	29	Force motrice (grosse)
454	8	20	157	27	2	Energie (municipale)
644	307	463	280	126	4	Eclairage des rues
74,135	45,611	11,419	54,689	229,355	1,887	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
63,767	35,747	9,129	39,616	194,144	1,534	Service domestique
8,856	6,856	1,874	10,982	30,010	280	Eclairage commercial
1,046	539	316	3,358	4,231	38	Force motrice (petite)
390	2,448	26	319	891	29	Force motrice (grosse)
9	2	3	147	9	2	Energie (municipale)
67	19	71	267	70	4	Eclairage des rues
16,669	10,288	227	3,072	3,827	858	Non-génératrices
57,466	35,343	11,192	51,617	225,528	1,029	Génératrices
56,692	33,812	6	29,038	222,725	85	Hydrauliques
774	1,531	11,186	22,579	2,803	944	Combustible
1,038,283	105,547	94,155	87,187	62,800	-	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
905,467	83,827	71,485	69,101	51,881	-	Service domestique
113,179	14,732	18,615	13,357	9,062	-	Eclairage commercial
14,979	4,376	3,208	4,298	1,618	-	Force motrice (petite)
3,636	2,318	438	408	165	-	Force motrice (grosse)
445	6	17	10	18	-	Energie (municipale)
577	288	392	13	56	-	Eclairage des rues
781,387	43,910	20,734	39,585	25,404	-	Non-génératrices
256,896	61,637	73,421	47,602	37,396	-	Génératrices
255,284	60,618	-	-	35,132	-	Hydrauliques
1,612	1,019	73,421	47,602	2,264	-	Combustible
798,056	54,178	20,961	42,657	29,231	858	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
684,590	42,686	16,726	34,764	24,748	604	Service domestique
96,021	9,067	3,180	5,487	3,659	190	Eclairage commercial
13,780	1,870	1,009	2,254	695	37	Force motrice (petite)
2,882	266	27	129	90	23	Force motrice (grosse)
444	3	7	7	15	2	Energie (municipale)
339	286	12	16	24	2	Eclairage des rues
314,362	96,980	84,613	99,219	262,924	1,029	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
311,976	94,430	6	29,038	257,857	85	Usines hydrauliques
282,559	75,066	-	21,099	217,236	77	Service domestique
25,733	11,944	-	5,593	34,595	1	Eclairage commercial
2,235	2,917	-	1,960	4,977	1	Force motrice (petite)
1,140	4,490	6	234	956	6	Force motrice (grosse)
9	2	-	28	6	-	Energie (municipale)
300	11	-	124	87	-	Eclairage des rues
2,586	2,550	84,607	70,181	5,067	944	Usines à combustible
2,085	1,822	63,888	52,854	4,041	853	Service domestique
281	577	17,309	13,259	818	89	Eclairage commercial
10	128	2,515	3,442	177	-	Force motrice (petite)
4	10	431	364	10	-	Force motrice (grosse)
1	3	13	122	6	-	Energie (municipale)
5	10	451	140	15	2	Eclairage des rues
22.56	15.80	9.44	12.85	22.74	6.39	Moyenne de consommateurs d'éclairage électrique par 100 habitants

TABLE 8 - POLE LINE MILEAGE, 1948

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	113,722	463	6,696	4,582	23,801
Per cent of total for Canada .....	100.00	0.41	5.89	4.03	20.93
Miles of steel towers .....	6,249	-	21	331	1,506
Miles of steel poles .....	276	-	2	-	201
Miles of wooden poles .....	104,459	460	6,660	4,250	21,301
Miles of concrete poles .....	517	-	-	1	-
Miles of underground and submarine cables .....	2,221	3	13	-	793
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	41,562	390	3,245	663	20,557
Non-generating .....	3,070	-	700	250	1,101
Generating .....	38,492	390	2,545	413	19,356
Hydraulic .....	34,735	25	1,432	393	19,128
Fuel .....	3,757	365	1,113	20	228
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	72,160	73	3,451	3,919	3,344
Non-generating .....	19,531	-	639	243	327
Generating .....	52,629	73	2,812	3,676	3,017
Hydraulic .....	43,752	-	2,709	41	3,005
Fuel .....	8,877	73	103	3,635	12
<u>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</u> .....	22,601	-	1,339	493	1,428
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	91,121	463	5,357	4,089	22,373
Hydraulic .....	78,487	25	4,141	434	22,133
Fuel .....	12,634	438	1,216	3,655	240

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1948

<u>TOTAL PRIMARY POWER</u> .....	H.P.	181,055	400	2,025	7,285	41,951
Per cent of total for Canada .....		100.00	0.22	1.12	4.02	23.17
Steam reciprocating engines .....	No.	13	1	3	2	-
Total capacity .....	H.P.	4,818	75	1,190	800	-
Steam turbines .....	No.	37	-	1	3	8
Total capacity .....	H.P.	154,079	-	670	1,925	36,224
Gas and oil engines .....	No.	52	3	1	6	10
Total capacity .....	H.P.	22,158	325	165	4,560	5,727
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	135,470	262	1,638	5,781	37,544
<u>COMMERCIAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	89,237	400	2,025	3,325	7,235
Steam reciprocating engines .....	No.	13	1	3	2	-
Total capacity .....	H.P.	4,818	75	1,190	800	-
Steam turbines .....	No.	25	-	1	3	3
Total capacity .....	H.P.	75,875	-	670	1,925	3,500
Gas and oil engines .....	No.	26	3	1	2	5
Total capacity .....	H.P.	8,544	325	165	600	3,735
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	54,237	262	1,638	2,335	5,875
<u>MUNICIPAL STATIONS</u>						
<u>TOTAL PRIMARY POWER</u> .....	H.P.	91,818	-	-	3,960	34,716
Steam reciprocating engines .....	No.	-	-	-	-	-
Total capacity .....	H.P.	-	-	-	-	-
Steam turbines .....	No.	12	-	-	-	5
Total capacity .....	H.P.	78,204	-	-	-	32,724
Gas and oil engines .....	No.	26	-	-	4	5
Total capacity .....	H.P.	13,614	-	-	3,960	1,992
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	81,233	-	-	3,446	31,669

TABLEAU 8 - LONGUEUR (EN MILES) DES LIGNES SUR POTEAUX, 1948

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	
45,626	11,564	5,009	7,552	8,363	66	<u>LONGUEUR (EN MILES) DES LIGNES SUR POTEAUX</u>
40.12	10.17	4.40	6.64	7.35	0.06	Pourcentage du total pour tout le Canada
3,335	688	59	35	274	-	Milles de pylones d'acier
70	3	-	-	-	-	Milles de poteaux d'acier
40,616	10,818	4,924	7,421	7,944	65	Milles de poteaux de bois
515	1	-	-	-	-	Milles de poteaux de ciment
1,090	54	26	96	145	1	Milles de câbles souterrains et sous-marins
2,245	1,391	358	6,474	6,273	66	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES COMMERCIALES</u>
433	212	7	75	270	22	Non-génératrices
1,812	1,179	351	6,399	6,003	44	Génératrices
1,795	1,103	59	4,864	5,909	27	Hydrauliques
17	76	292	1,535	94	17	A combustible
43,381	10,173	4,651	1,078	2,090	-	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES MUNICIPALES</u>
7,910	9,243	217	546	406	-	Non-génératrices
35,471	930	4,434	532	1,684	-	Génératrices
35,438	923	-	-	1,636	-	Hydrauliques
33	7	4,434	532	48	-	A combustible
8,343	9,455	224	621	676	22	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES NON-GENERATRICES</u>
37,283	2,109	4,785	6,931	7,687	44	<u>TOTAL (EN MILES) POUR LE SERVICE DES USINES GENERATRICES</u>
37,233	2,026	59	4,864	7,545	27	Hydrauliques
50	83	4,726	2,067	142	17	A combustible

TABLEAU 9 - OUTILLAGE AUXILIAIRE, 1948

47,392	15,980	-	18,963	46,899	160	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
28.18	8.83	-	10.47	25.90	0.09	Pourcentage du total pour tout le Canada
-	-	-	7	-	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	-	2,753	-	-	Capacité totale ..... H.P.
5	5	-	4	10	1	Turbines à vapeur ..... Nomb.
42,020	15,980	-	15,000	42,100	160	Capacité totale ..... H.P.
9	-	-	7	16	-	Moteurs à gaz et à pétrole ..... Nomb.
5,372	-	-	1,210	4,799	-	Capacité totale ..... H.P.
38,162	14,906	-	16,662	20,365	150	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
						<u>USINES COMMERCIALES</u>
14,160	-	-	18,963	42,969	160	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
-	-	-	7	-	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	-	2,753	-	-	Capacité totale ..... H.P.
3	-	-	4	10	1	Turbines à vapeur ..... Nomb.
12,520	-	-	15,000	42,100	160	Capacité totale ..... H.P.
3	-	-	7	5	-	Moteurs à gaz et à pétrole ..... Nomb.
1,640	-	-	1,210	869	-	Capacité totale ..... H.P.
10,000	-	-	16,662	17,315	150	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.
						<u>USINES MUNICIPALES</u>
33,232	15,980	-	-	3,930	-	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
-	-	-	-	-	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	-	-	-	-	Capacité totale ..... H.P.
2	5	-	-	-	-	Turbines à vapeur ..... Nomb.
29,500	15,980	-	-	-	-	Capacité totale ..... H.P.
6	-	-	-	11	-	Moteurs à gaz et à pétrole ..... Nomb.
3,732	-	-	-	3,930	-	Capacité totale ..... H.P.
28,162	14,906	-	-	3,050	-	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> ..... Kv.A.



TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1948

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL PRIMARY POWER</u> ..... H.P.	10,219,596	10,529	210,027	193,962	5,586,378
Per cent of total for Canada .....	100.00	0.10	2.06	1.90	54.66
Water wheels and turbines ..... No.	792	6	56	14	279
Total capacity ..... H.P.	9,470,306	387	109,958	104,260	5,542,282
Steam reciprocating engines ..... No.	22	1	5	4	-
Total capacity ..... H.P.	11,136	75	2,990	2,600	-
Steam turbines ..... No.	120	4	20	12	8
Total capacity ..... H.P.	636,746	6,680	94,051	73,795	36,224
Gas and oil engines ..... No.	495	19	18	24	26
Total capacity ..... H.P.	101,408	3,387	3,028	13,307	7,872
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	8,514,509	7,954	176,944	166,572	4,745,422
Per cent of total for Canada .....	100.00	0.09	2.08	1.96	55.73
Dynamos, A.C. .... No.	1,335	22	98	53	312
Total capacity ..... Kv.A.	8,510,323	7,565	176,644	166,572	4,745,410
Dynamos, D.C. .... No.	74	4	1	-	1
Total capacity ..... Kw.	4,186	389	300	-	12
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	6,134,455	7,939	118,172	95,725	4,466,422
Water wheels and turbines ..... No.	426	6	16	8	203
Total capacity ..... H.P.	5,837,670	387	25,878	91,400	4,457,222
Steam reciprocating engines ..... No.	17	1	5	2	-
Total capacity ..... H.P.	7,026	75	2,990	800	-
Steam turbines ..... No.	57	4	15	4	3
Total capacity ..... H.P.	260,378	6,680	86,845	2,925	3,500
Gas and oil engines ..... No.	233	13	8	2	19
Total capacity ..... H.P.	29,381	797	2,459	600	5,700
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	5,119,048	5,773	98,449	83,110	3,740,974
Dynamos, A.C. .... No.	659	16	43	15	224
Total capacity ..... Kv.A.	5,116,403	5,384	98,149	83,110	3,740,962
Dynamos, D.C. .... No.	55	4	1	-	1
Total capacity ..... Kw.	2,645	389	300	-	12
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL PRIMARY POWER</u> ..... H.P.	4,085,141	2,590	91,855	98,237	1,119,956
Water wheels and turbines ..... No.	366	-	40	6	76
Total capacity ..... H.P.	3,632,636	-	84,080	12,860	1,085,060
Steam reciprocating engines ..... No.	5	-	-	2	-
Total capacity ..... H.P.	4,110	-	-	1,800	-
Steam turbines ..... No.	63	-	5	8	5
Total capacity ..... H.P.	376,368	-	7,200	70,870	32,724
Gas and oil engines ..... No.	262	6	10	22	7
Total capacity ..... H.P.	72,027	2,590	569	12,707	2,172
<u>TOTAL DYNAMO CAPACITY</u> ..... Kv.A.	3,395,461	2,181	78,495	83,462	1,004,448
Dynamos, A.C. .... No.	676	6	55	38	88
Total capacity ..... Kv.A.	3,393,920	2,181	78,495	83,462	1,004,448
Dynamos, D.C. .... No.	19	-	-	-	-
Total capacity ..... Kw.	1,541	-	-	-	-

\* Included with British Columbia up to and including 1947.

TABLEAU 10 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1948

Ontario	Manitoba	Seskat- chewan	Alberta	British Columbia	Yukon and Northwest Territories	
2,665,484	485,182	292,652	240,725	531,810	2,847	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> ..... H.P.
26.08	4.75	2.86	2.36	5.20	0.03	Pourcentage du total pour le Canada .....
316	42	6	10	62	1	Turbines et roues hydrauliques ..... Nomb.
2,571,202	466,800	106,500	104,500	462,417	2,000	Capacité totale ..... H.P.
-	-	1	11	-	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	750	4,751	-	-	Capacité totale ..... H.P.
9	5	25	20	16	1	Turbines à vapeur ..... Nomb.
87,770	15,980	153,668	118,140	50,278	160	Capacité totale ..... H.P.
18	15	165	123	81	6	Moteurs à gaz et à pétrole ..... Nomb.
6,512	2,402	31,734	13,364	19,115	687	Capacité totale ..... H.P.
2,132,608	392,492	247,472	210,815	432,029	2,201	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
25.05	4.61	2.91	2.47	5.07	0.03	Pourcentage du total pour le Canada .....
342	60	154	138	148	8	Dynamos, C.A. .... Nomb.
2,132,608	392,492	246,581	208,321	431,929	2,201	Capacité totale ..... Kv.A.
-	-	43	20	5	-	Dynamos, C.D. .... Nomb.
-	-	891	2,494	100	-	Capacité totale ..... Kw.
456,536	266,932	139,701	144,234	435,947	2,847	<u>USINES COMMERCIALES</u>
112	18	6	10	46	1	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
396,311	265,800	106,500	104,500	387,672	2,000	Turbines et roues hydrauliques ..... Nomb.
-	-	-	9	-	-	Capacité totale ..... H.P.
-	-	-	3,161	-	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
7	-	4	7	12	1	Capacité totale ..... H.P.
58,270	-	31,998	24,300	45,700	160	Turbines à vapeur ..... Nomb.
6	12	37	113	17	6	Capacité totale ..... H.P.
1,955	1,132	1,203	12,273	2,575	687	Moteurs à gaz et à pétrole ..... Nomb.
						Capacité totale ..... H.P.
390,638	206,991	114,657	124,499	351,756	2,201	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
124	28	16	120	65	8	Dynamos, C.A. .... Nomb.
390,638	206,991	114,110	123,202	351,656	2,201	Capacité totale ..... Kv.A.
-	-	29	15	5	-	Dynamos, C.D. .... Nomb.
-	-	547	1,297	100	-	Capacité totale ..... Kw.
2,208,948	218,250	152,951	96,491	95,863	-	<u>USINES MUNICIPALES</u>
204	24	-	-	16	-	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
2,174,891	201,000	-	-	74,745	-	Turbines et roues hydrauliques ..... Nomb.
-	-	1	2	-	-	Capacité totale ..... H.P.
-	-	750	1,560	-	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
2	5	21	13	4	-	Capacité totale ..... H.P.
29,500	15,980	121,670	93,840	4,578	-	Turbines à vapeur ..... Nomb.
12	3	128	10	64	-	Capacité totale ..... H.P.
4,557	1,270	30,531	1,091	16,540	-	Moteurs à gaz et à pétrole ..... Nomb.
						Capacité totale ..... H.P.
1,741,970	185,501	132,815	86,316	80,273	-	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
218	32	138	18	83	-	Dynamos, C.A. .... Nomb.
1,741,970	185,501	132,471	85,119	80,273	-	Capacité totale ..... Kv.A.
-	-	14	5	-	-	Dynamos, C.D. .... Nomb.
-	-	344	1,197	-	-	Capacité totale ..... Kw.



TABLE 11 - MAIN PLANT EQUIPMENT, 1948

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	10,038,541	10,129	208,002	186,677	5,544,427
Water Wheels and turbines ..... No.	100.00	0.10	2.07	1.86	55.23
Total Capacity ..... H.P.	792	6	56	14	279
Steam reciprocating engines ..... No.	9,470,306	387	109,958	104,260	5,542,282
Total Capacity ..... H.P.	9	-	2	2	-
Steam turbines ..... No.	6,318	-	1,800	1,800	-
Total Capacity ..... H.P.	63	4	19	9	-
Gas and oil engines ..... No.	482,667	6,680	93,381	71,870	-
Total Capacity ..... H.P.	443	16	17	18	16
	79,260	3,062	2,863	8,747	2,145
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	8,372,039	7,692	175,306	160,791	4,707,878
Dynamos, A.C. .... No.	100.00	0.09	2.09	1.92	56.19
Total Capacity ..... Kv.A.	1,250	21	94	43	296
Dynamos, D.C. .... No.	8,372,467	7,517	175,306	160,791	4,707,866
Total Capacity ..... Kw.	69	2	-	-	1
	2,572	175	-	-	12
<b>COMMERCIAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	6,045,218	7,539	116,147	92,400	4,459,187
Water Wheels and turbines ..... No.	100.00	0.13	1.92	1.53	73.76
Total Capacity ..... H.P.	426	6	16	8	203
Steam reciprocating engines ..... No.	5,837,670	387	25,878	91,400	4,457,222
Total Capacity ..... H.P.	4	-	2	-	-
Steam turbines ..... No.	2,208	-	1,800	-	-
Total Capacity ..... H.P.	32	4	14	1	-
Gas and oil engines ..... No.	184,503	6,680	86,175	1,000	-
Total Capacity ..... H.P.	207	10	7	-	14
	20,837	472	2,294	-	1,965
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	5,064,811	5,511	96,811	80,775	3,735,099
Dynamos, A.C. .... No.	100.00	0.11	1.91	1.59	73.75
Total Capacity ..... Kv.A.	612	15	39	9	218
Dynamos, D.C. .... No.	5,063,780	5,336	96,811	80,775	3,735,087
Total Capacity ..... Kw.	50	2	-	-	1
	1,031	175	-	-	12
<b>MUNICIPAL STATIONS</b>					
<b>TOTAL PRIMARY POWER</b> ..... H.P.					
Per cent of total for Canada .....	3,993,323	2,590	91,855	94,277	1,085,240
Water Wheels and turbines ..... No.	100.00	0.06	2.30	2.36	27.18
Total Capacity ..... H.P.	366	-	40	6	76
Steam reciprocating engines ..... No.	3,632,636	-	84,080	12,860	1,085,060
Total Capacity ..... H.P.	5	-	-	2	-
Steam turbines ..... No.	4,110	-	-	1,800	-
Total Capacity ..... H.P.	51	-	5	8	-
Gas and oil engines ..... No.	298,164	-	7,206	70,870	-
Total Capacity ..... H.P.	236	6	10	18	2
	58,413	2,590	569	8,747	180
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	3,314,228	2,181	78,495	80,016	972,779
Dynamos, A.C. .... No.	100.00	0.07	2.37	2.41	29.35
Total Capacity ..... Kv.A.	638	6	55	34	78
Dynamos, D.C. .... No.	3,312,687	2,181	78,495	80,016	972,779
Total Capacity ..... Kw.	19	-	-	-	-
	1,541	-	-	-	-
<b>HYDRAULIC STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	7,887,551	338	91,720	90,288	4,706,126
Dynamos, A.C. .... No.	100.00	0.01	1.16	1.14	59.67
Total Capacity ..... Kv.A.	788	3	56	14	280
Dynamos, D.C. .... No.	7,887,294	163	91,720	90,288	4,706,114
Total Capacity ..... Kw.	5	2	-	-	1
	257	175	-	-	12
<b>FUEL STATIONS</b>					
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.					
Per cent of total for Canada .....	491,498	7,354	83,586	70,503	1,752
Dynamos, A.C. .... No.	100.00	1.50	17.01	14.34	0.36
Total Capacity ..... Kv.A.	167	18	38	29	16
Dynamos, D.C. .... No.	489,173	7,354	83,586	70,503	1,752
Total Capacity ..... Kw.	64	-	-	-	-
	2,315	-	-	-	-

\* Included with British Columbia up to and including 1947.



TABLEAU 11 - OUTILLAGE DES USINES PRINCIPALES, 1946

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	
2,618,092	469,202	292,652	221,762	484,911	2,687	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
26.08	4.67	2.92	2.21	4.83	0.03	Pourcentage du total pour le Canada ..... Nomb.
316	42	6	10	62	1	Roues hydrauliques et turbines ..... Nomb.
2,571,202	466,800	106,500	104,500	462,417	2,000	Capacité totale ..... H.P.
-	-	1	4	-	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	750	1,968	-	-	Capacité totale ..... H.P.
4	-	25	16	6	-	Turbines à vapeur ..... Nomb.
45,750	-	153,668	103,140	8,178	-	Capacité totale ..... H.P.
9	15	165	116	65	6	Moteurs à gaz et à pétrole ..... Nomb.
1,140	2,402	31,734	12,154	14,316	687	Capacité totale ..... H.P.
2,094,446	377,586	247,472	194,153	411,664	2,051	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
25.00	4.51	2.95	2.32	4.91	0.02	Pourcentage du total pour le Canada ..... Nomb.
329	55	154	122	129	7	Dynamos, C.A. .... Nomb.
2,094,446	377,586	246,581	192,759	411,564	2,051	Capacité totale ..... Kv.A.
-	-	43	18	5	-	Dynamos, C.D. .... Nomb.
-	-	891	1,394	100	-	Capacité totale ..... Kw.
442,376	266,932	139,701	125,271	392,978	2,687	<u>USINES COMMERCIALES</u>
7.32	4.42	2.31	2.07	6.50	0.04	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
112	18	6	10	46	1	Pourcentage du total pour le Canada ..... Nomb.
396,311	265,800	106,500	104,500	387,672	2,000	Turbines et roues hydrauliques ..... Nomb.
-	-	-	2	-	-	Capacité totale ..... H.P.
-	-	-	478	-	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
4	-	4	3	2	-	Capacité totale ..... H.P.
45,750	-	31,998	9,300	3,600	-	Turbines à vapeur ..... Nomb.
3	12	37	106	12	6	Capacité totale ..... H.P.
315	1,132	1,203	11,063	1,706	687	Moteurs à gaz et à pétrole ..... Nomb.
380,638	206,991	114,657	107,837	334,441	2,051	Capacité totale ..... H.P.
7.52	4.09	2.26	2.13	6.60	0.04	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
119	28	16	104	57	7	Pourcentage du total pour le Canada ..... Nomb.
380,638	206,991	114,110	107,640	334,341	2,051	Dynamos, C.A. .... Nomb.
-	-	29	13	5	-	Capacité totale ..... Kv.A.
-	-	547	197	100	-	Dynamos, C.D. .... Nomb.
2,175,716	202,270	152,951	96,491	91,933	-	Capacité totale ..... Kw.
54.48	5.07	3.83	2.42	2.30	-	<u>USINES MUNICIPALES</u>
204	24	-	-	16	-	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P.
2,174,391	201,000	-	-	74,745	-	Pourcentage du total pour le Canada ..... Nomb.
-	-	1	2	-	-	Turbines et roues hydrauliques ..... Nomb.
-	-	750	1,560	-	-	Capacité totale ..... H.P.
-	-	21	13	4	-	Machines à vapeur, à mouvement alternatif ..... Nomb.
-	-	121,670	93,840	4,578	-	Capacité totale ..... H.P.
6	3	128	10	53	-	Turbines à vapeur ..... Nomb.
925	1,270	30,551	1,091	12,610	-	Capacité totale ..... H.P.
1,713,808	170,595	132,815	86,316	77,223	-	Moteurs à gaz et à pétrole ..... Nomb.
51.71	5.15	4.01	2.60	2.33	-	Capacité totale ..... H.P.
210	27	138	18	72	-	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A.
1,713,808	170,595	132,471	85,119	77,223	-	Pourcentage du total pour le Canada ..... Nomb.
-	-	14	5	-	-	Dynamos, C.A. .... Nomb.
-	-	344	1,197	-	-	Capacité totale ..... Kv.A.
2,056,441	375,600	90,000	82,750	392,788	1,500	Dynamos, C.D. .... Nomb.
26.07	4.76	1.14	1.05	4.98	0.02	Capacité totale ..... Kw.
316	42	6	10	60	1	<u>USINES HYDRAULIQUES</u>
2,056,441	375,600	90,000	82,750	392,718	1,500	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
-	-	-	-	2	-	Pourcentage du total pour le Canada ..... Nomb.
-	-	-	-	70	-	Dynamos, C.A. .... Nomb.
-	-	-	-	-	-	Capacité totale ..... Kv.A.
-	-	-	-	-	-	Dynamos, C.D. .... Nomb.
-	-	-	-	-	-	Capacité totale ..... Kw.
38,005	1,986	157,472	111,403	18,876	551	<u>USINES A COMBUSTIBLE</u>
7.73	0.40	32.04	22.67	3.84	0.11	<u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A.
13	13	148	112	69	6	Pourcentage du total pour le Canada ..... Nomb.
38,005	1,986	156,581	110,009	18,846	551	Dynamos, C.A. .... Nomb.
-	-	43	18	3	-	Capacité totale ..... Kv.A.
-	-	891	1,394	30	-	Dynamos, C.D. .... Nomb.
-	-	-	-	-	-	Capacité totale ..... Kw.

\* Compris dans Colombie-Britannique jusqu'à 1947 inclus.

TABLE 12 - ELECTRIC ENERGY GENERATED, 1948

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>ALL STATIONS</u>					
Total Kilowatt hours generated ..... (thousands)	42,389,681	21,932	677,661	591,636	24,566,682
Per cent of total for Canada .....	100.00	0.05	1.60	1.40	57.95
Kilowatt hours generated by non-generating stations (thousands)	1,155	-	-	343	-
Kilowatt hours generated by generating stations ... (thousands)	42,388,526	21,932	677,661	591,293	24,566,682
Kv.A. capacity of generating stations .....	8,497,660	7,954	175,456	162,517	4,735,422
Ratio of output to maximum capacity ..... p.c.	56.94	31.47	44.09	41.55	59.22
Average kilowatt hours per Kv.A. ....	4,988	2,757	3,862	3,640	5,188
<u>GENERATING STATIONS</u>					
<u>COMMERCIAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	25,696,588	17,612	406,437	387,721	18,820,627
Kv.A. capacity .....	5,115,075	5,775	96,961	80,775	3,740,974
Ratio of output to maximum capacity ..... p.c.	57.35	34.83	47.85	54.79	57.43
Average kilowatt hours per Kv.A. ....	5,024	3,051	4,192	4,800	5,031
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	25,211,936	523	104,506	380,746	18,817,594
Kv.A. capacity .....	4,935,909	600	19,738	80,025	3,759,369
Ratio of output to maximum capacity ..... p.c.	58.31	9.95	60.45	54.32	57.44
Average kilowatt hours per Kv.A. ....	5,108	872	5,295	4,758	5,032
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	484,652	17,089	301,931	6,975	3,033
Kv.A. capacity .....	179,166	5,173	77,223	750	1,605
Ratio of output to maximum capacity ..... p.c.	30.88	37.71	44.63	10.62	21.58
Average kilowatt hours per Kv.A. ....	2,705	3,303	3,910	930	1,890
<u>MUNICIPAL STATIONS</u>					
<u>TOTAL</u>					
Kilowatt hours generated ..... (thousands)	16,691,938	4,320	271,224	203,572	5,746,055
Kv.A. capacity .....	3,382,585	2,181	78,495	81,742	994,448
Ratio of output to maximum capacity ..... p.c.	56.34	22.61	39.44	28.42	65.96
Average kilowatt hours per Kv.A. ....	4,935	1,981	3,455	2,490	5,778
<u>Hydraulic Stations</u>					
Kilowatt hours generated ..... (thousands)	15,969,673	-	261,868	19,678	5,745,578
Kv.A. capacity .....	3,070,263	-	72,132	11,989	994,301
Ratio of output to maximum capacity ..... p.c.	59.37	-	41.44	18.73	65.97
Average kilowatt hours per Kv.A. ....	5,201	-	3,630	1,641	5,779
<u>Fuel Stations</u>					
Kilowatt hours generated ..... (thousands)	722,265	4,320	9,356	183,894	477
Kv.A. capacity .....	312,322	2,181	6,363	69,753	147
Ratio of output to maximum capacity ..... p.c.	26.40	22.61	16.78	30.09	37.04
Average kilowatt hours per Kv.A. ....	2,313	1,981	1,470	2,636	3,245
<u>TOTAL HYDRAULIC STATIONS</u>					
Kilowatt hours generated ..... (thousands)	41,181,609	523	366,374	400,424	24,563,172
Kv.A. capacity .....	8,006,172	600	91,870	92,014	4,733,670
Ratio of output to maximum capacity ..... p.c.	58.72	9.95	45.53	49.68	59.24
Average kilowatt hours per Kv.A. ....	5,144	872	3,988	4,352	5,189
Kilowatt hours generated by water power ..... (thousands)	41,070,095	320	366,373	397,233	24,560,684
Kilowatt hours generated by auxiliary plants ..... (thousands)	111,514	203	1	3,191	2,488
<u>TOTAL FUEL STATIONS</u>					
Kilowatt hours generated ..... (thousands)	1,206,917	21,409	311,287	190,869	3,510
Kv.A. capacity .....	491,488	7,354	83,586	70,503	1,752
Ratio of output to maximum capacity ..... p.c.	28.04	33.23	42.51	30.90	22.87
Average kilowatt hours per Kv.A. ....	2,456	2,911	3,724	2,707	2,003
<u>CONSUMPTION OF ELECTRIC ENERGY (Thousands of kilowatt hours)</u>					
Total kilowatt hours generated .....	42,389,681	21,932	677,661	591,636	24,566,682
Kilowatt hours imported from the United States .....	86,391	-	-	20	314
Kilowatt hours imported from other provinces .....	-	-	-	12,618	6,193
Kilowatt hours exported to the United States .....	1,743,108	-	-	35,552	2,247
Kilowatt hours exported to other provinces .....	-	-	4,964	1,702	5,485,158
<u>KILOWATT HOURS FOR CONSUMPTION IN CANADA .....(thousands)</u>					
Domestic service .....	4,984,280	8,341	110,981	67,749	830,445
Commercial light .....	2,154,853	4,151	57,598	37,468	559,699
Small power .....	680,986	1,149	57,267	14,796	122,307
Large power .....	27,412,538	1,622	349,280	381,491	15,822,337
Municipal power .....	710,815	2,927	3,682	1,984	158,217
Street lighting .....	263,639	458	6,878	6,059	48,444
Free service (other than street lighting) .....	59,978	51	113	335	52,207
Losses .....	4,465,875	3,253	86,898	57,138	1,492,128

† Excludes exports to other provinces and/or to the United States.

x - Exports of Quebec power to U.S.A. through Ontario are credited to Ontario.

(1) Generating equipment for Yukon and Northwest Territories is located mainly in the mining and smelting industry.

\* Included with British Columbia up to and including 1947.



TABLEAU 12 - ENERGIE ELECTRIQUE GENEREE, 1948

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	
<u>TOUTES USINES</u>						
11,095,608	2,055,709	804,994	724,498	1,820,271	30,690	Total Kw. heure générés ..... (milliers)
26.18	4.85	1.90	1.71	4.29	0.07	Pourcentage du total pour le Canada .....
705	107	-	-	-	-	Kilowatt-heure générés par les usines non-génératrices .. (milliers)
11,094,903	2,055,602	804,994	724,498	1,820,271	30,690	Kilowatt-heure générés par les usines génératrices ..... (milliers)
2,132,608	391,336	247,472	210,815	432,029	(1) 2,051	Capacité des usines génératrices en Kv.A. ....
59.39	59.97	37.13	39.24	48.09	-	Proportion de la production à la capacité maximum ..... p.c.
5,203	5,253	3,253	3,437	4,213	-	Moyenne de kilowatt-heure par Kv.A. ....
<u>USINES GENERATRICES</u>						
<u>USINES COMMERCIALES</u>						
<u>TOTAL</u>						
2,043,688	1,269,730	533,979	489,319	1,696,785	30,690	Kilowatt-heure générés ..... (milliers)
390,638	206,991	114,657	124,499	351,756	(1) 5,051	Capacité en Kv.A. ....
59.73	70.02	53.16	44.86	55.07	-	Proportion de la production à la capacité maximum ..... p.c.
5,232	6,134	4,657	3,930	4,824	-	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines Hydrauliques</u>						
2,016,931	1,268,156	471,672	453,086	1,669,100	29,622	Kilowatt-heure générés ..... (milliers)
353,280	206,100	90,000	99,412	345,885	(1) 1,500	Capacité en Kv.A. ....
65.17	70.24	59.83	52.03	55.09	-	Proportion de la production à la capacité maximum ..... p.c.
5,709	6,153	5,241	4,558	4,826	-	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines à combustible</u>						
26,757	1,574	62,307	36,233	27,685	1,068	Kilowatt-heure générés ..... (milliers)
37,358	891	24,657	25,087	5,871	(1) 551	Capacité en Kv.A. ....
53.84	20.17	28.85	16.48	53.84	-	Proportion de la production à la capacité maximum ..... p.c.
4,716	1,767	2,527	1,444	4,716	-	Moyenne de kilowatt-heure par Kv.A. ....
<u>USINES MUNICIPALES</u>						
<u>TOTAL</u>						
9,051,215	785,872	271,015	235,179	123,486	-	Kilowatt-heure générés ..... (milliers)
1,741,970	184,345	132,815	86,316	80,273	-	Capacité en Kv.A. ....
59.32	48.66	23.30	31.11	17.56	-	Proportion de la production à la capacité maximum ..... p.c.
5,196	4,263	2,041	2,725	1,538	-	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines Hydrauliques</u>						
9,049,509	784,463	-	-	108,577	-	Kilowatt-heure générés ..... (milliers)
1,741,323	183,250	-	-	67,268	-	Capacité en Kv.A. ....
59.33	48.87	-	-	18.42	-	Proportion de la production à la capacité maximum ..... p.c.
5,197	4,281	-	-	1,614	-	Moyenne de kilowatt-heure par Kv.A. ....
<u>Usines à combustible</u>						
1,706	1,409	271,015	235,179	14,909	-	Kilowatt-heure générés ..... (milliers)
647	1,095	132,815	86,316	13,005	-	Capacité en Kv.A. ....
30.10	14.69	23.30	31.11	13.08	-	Proportion de la production à la capacité maximum ..... p.c.
2,637	1,287	2,041	2,725	1,146	-	Moyenne de kilowatt-heure par Kv.A. ....
<u>TOUTES USINES HYDRAULIQUES</u>						
11,066,440	2,052,619	471,672	453,086	1,777,677	29,622	Kilowatt-heure générés ..... (milliers)
2,094,603	389,350	90,000	99,412	413,153	(1) 1,500	Capacité en Kv.A. ....
60.31	60.18	59.83	52.03	49.12	-	Proportion de la production à la capacité maximum ..... p.c.
5,283	5,272	5,241	4,558	4,303	-	Moyenne de kilowatt-heure par Kv.A. ....
11,054,394	2,052,586	471,672	429,758	1,707,453	29,622	Kilowatt-heure générés par force motrice hydraulique ..... (milliers)
12,046	33	-	23,328	70,224	-	Kilowatt-heure générés par les usines auxiliaires ..... (milliers)
<u>TOUTES USINES A COMBUSTIBLE</u>						
28,463	2,983	333,322	271,412	42,594	1,068	Kilowatt-heure générés ..... (milliers)
38,005	1,986	157,472	111,403	18,876	(1) 551	Capacité en Kv.A. ....
8.55	17.15	24.17	27.81	25.76	-	Proportion de la production à la capacité maximum ..... p.c.
749	1,502	2,117	2,436	2,257	-	Moyenne de kilowatt-heure par Kv.A. ....
<u>SOMMATION D'ENERGIE ELECTRIQUE (En Milliers de Kw.H.)</u>						
11,095,608	2,055,709	804,994	724,498	1,820,271	30,690	Total de kilowatt-heure générés .....
375	440	77	171	84,994	-	Kilowatt-heure importés des Etats-Unis .....
5,477,504	6,856	469	4,712	-	-	Kilowatt-heure importés d'autres provinces .....
1,691,027	-	-	-	14,282	-	Kilowatt-heure exportés aux Etats-Unis .....
4,491	227	6,856	242	4,712	-	Kilowatt-heure exportés à d'autres provinces .....
<u>KILOWATT-HEURE CONSOMMES AU CANADA</u>						
14,877,969	2,062,778	798,684	729,139	1,886,271	30,690	..... (milliers)
2,799,781	553,430	89,871	107,548	414,850	1,284	Service domestique .....
950,795	154,046	59,564	90,206	239,994	1,332	Eclairage commercial .....
280,250	74,419	36,059	46,911	47,564	264	Petite force motrice .....
8,264,021	850,038	513,589	345,757	864,023	20,380	Grosse force motrice .....
371,946	125,819	18,524	19,815	2,824	5,077	Energie (municipale) .....
128,450	26,188	6,836	12,308	27,866	152	Eclairage des rues .....
2,034	258	169	5,551	316	984	Service gratuit (autre que l'éclairage des rues) .....
2,080,692	278,580	74,072	103,063	288,834	1,217	Pertes .....

✱ Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.

L'outillage générateur du Yukon et des territoires du Nord-Ouest paraît en majeure partie dans l'industrie de l'exploitation minière et de l'affinage.

x - Les exportations d'énergie électrique du Québec aux Etats-Unis par l'Ontario sont rapportées sous le titre Ontario.

✱ - Compris dans Colombie-Britannique jusqu'à 1947 inclus.



TABLE 13 - FUEL, 1948

	Bituminous Coal Charbon Bitumineux			
	Canadian	- Canadien	Imported	- Importé
	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
CANADA.....	x 855,000	x 4,604,192	27,203	188,620
Prince Edward Island .....	154	1,650	-	-
Nova Scotia .....	234,015	1,831,590	-	-
New Brunswick .....	151,714	1,131,770	-	-
Quebec .....	957	10,325	-	-
Ontario .....	550	6,870	27,203	188,620
Manitoba .....	-	-	-	-
Saskatchewan .....	x 136,362	x 588,408	-	-
Alberta .....	x 297,308	x 802,700	-	-
British Columbia .....	x 33,940	x 230,879	-	-
Yukon and Northwest Territories x	-	-	-	-
		Fuel Oil and Diesel Oil Mazout et huile diesel	Wood Bois	
		Quantity Quantité	Quantity Quantité	Value Valeur
	Gal. Gal.	\$	Cords Cordes	\$
CANADA .....	30,279,060	3,024,970	-	-
Prince Edward Island .....	2,280,756	254,791	-	-
Nova Scotia .....	321,280	50,581	-	-
New Brunswick .....	484,774	82,908	-	-
Quebec .....	533,012	112,706	-	-
Ontario .....	755,555	142,960	-	-
Manitoba .....	247,709	57,088	-	-
Saskatchewan .....	18,441,568	1,386,626	-	-
Alberta .....	1,012,199	216,910	-	-
British Columbia .....	6,096,839	694,392	-	-
Yukon and Northwest Territories x	105,368	26,008	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu.ft.

x - Includes sub-bituminous coal.

x - Included with British Columbia up to and including 1947.

TABLEAU 13 - COMBUSTIBLE, 1948

Lignite Coal Charbon Lignite		Gasoline		Kerosene	
Canadian - Canadien		Gasoline		Kérosène	
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
69,043	101,104	36,636	9,487	179	41
-	-	16,677	3,764	-	-
-	-	-	-	179	41
-	-	-	-	-	-
-	-	1,386	433	-	-
-	-	-	-	-	-
-	-	-	-	-	-
68,404	98,340	16,843	4,726	-	-
-	-	1,237	347	-	-
639	2,764	362	119	-	-
-	-	131	98	-	-
Manufactured Gas Gaz fabriqué		Natural Gas Gaz naturel		Other Fuel Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu. ft. 1,000 pds.cu.	\$	1,000 cu. ft. 1,000 pds.cu.	\$	\$	\$
14,242,897	317,774	1,739,889	137,747	30,300	8,414,235
-	-	-	-	-	260,205
14,236,769	316,056	-	-	39	2,198,307
-	-	-	-	-	1,214,678
-	-	-	-	-	123,464
6,128	1,718	-	-	566	340,734
-	-	-	-	29,344	86,432
-	-	-	-	216	2,078,316
-	-	1,739,889	137,747	135	1,157,839
-	-	-	-	-	928,154
-	-	-	-	-	26,106

**Note:** Tonne = 2,000 livres.  
Gallon = Impérial.  
Corde = 128 pds. cu.

x - Y compris la houille maigre.  
x - Compris dans Colombie-Britannique jusqu'à  
1947 inclus.









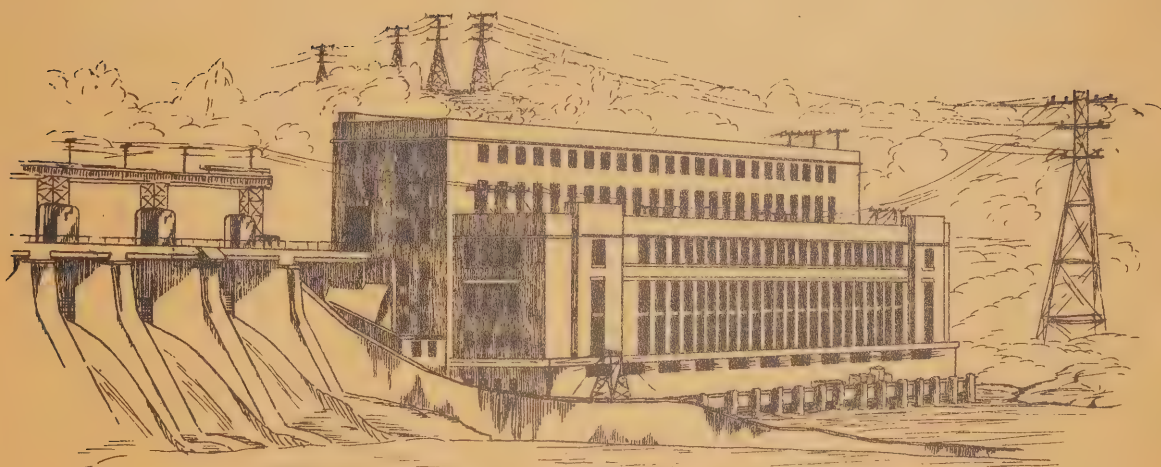
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Electric power statistics

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1949



CENTRAL ELECTRIC STATIONS

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Bills for Domestic Service, Commercial  
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## THE CENTRAL ELECTRIC STATION INDUSTRY

1 9 4 9

### Introduction

For the annual census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves or purchased for re-sale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies or individuals and (b) municipal (or publicly owned), - those operated by municipal, provincial or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell (many of them also purchase power to supplement their own output), and (b) non-generating, those stations which purchase practically all the power they sell. In this last class there were 11 stations which were holding generating equipment classed as auxiliary plant equipment. Six of them purchased all their electric energy and the remaining five generated only 1,545,000 kilowatt hours. This explains the rather anomalous item in table 12 showing the output of "non-generating" stations.

Included in the report are statistics covering a few stations concerned primarily with other industries, such as mining, manufacturing of pulp and paper, etc., and which sell surplus power. For such plants the statistics pertaining to the central electric station phase of the industry have been segregated as far as possible. Equipment, which is not used primarily for the Central Electric Station Industry, is not shown in the current report, accounting for a drop in the number of units listed for commercial stations as compared with years prior to 1947. This applies especially in Saskatchewan and Alberta.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently, the output as recorded in this annual report will not coincide with the output for the twelve calendar months shown in the monthly reports. The various data, however, in the annual reports are for comparable periods. Moreover, the monthly does not include statistics for the smaller stations and shows the net amount of power generated\* by reporting stations, whereas the annual excludes all power for company use. Further, for long term comparability, the monthly report retains the West Kootenay plants which were dropped from the annual in 1947, as their entire output was taken over by the parent company and is reported under the metal smelting and refining industry.

During 1949 primary power consumed in Canada (including all line losses) increased from 38,428,977,000 kilowatt hours in 1948 to 39,853,044,000 kilowatt hours, or by 3.7 per cent, but the consumption of secondary power increased from 2,303,987,000 kilowatt hours in 1948 to 2,839,982,000 or by 23.3 p.c. reflecting in part improved stream flow in Eastern regions as compared with the short supply of the preceding year.

Secondary power is off-peak or surplus power delivered as it is available. It is subject to interruption or variation daily and seasonally, and consequently is sold at relatively low rates. The stations endeavour to keep their "secondary" customers advised as much in advance as possible of interruptions or reductions, which may be due to variations in water supply or in the demands of customers for primary power.

Primary power, also known in the industry as "firm power", is power delivered as and when demanded or required by the customer. Stations must be ready to deliver power to primary power customers

\* Output less station use.

up to the rate contracted for whenever the customer requires it, and consequently must have sufficient capacity or interconnections to take care of all such demands. In practice, all customers on a system do not require their maximum deliveries at the same time and generally there is a considerable difference hourly and daily in the rate at which the power plant must operate to produce the power as required. Most of the secondary power is sold to pulp and paper mills for the production of low pressure steam where short interruptions of electric energy for the boilers can be tolerated without much inconvenience. Secondary sales are confined mainly to Quebec, Ontario and Manitoba, with Quebec using 73 p.c. of the total secondary consumed in Canada during 1949.

Based on monthly reports, the consumption of primary power has continued to increase steadily since September of 1946 and is currently running about 75 p.c. above that month. Deliveries of secondary power had risen to a peak in 1946 but post war industrial activity plus water shortages and a rising domestic demand reduced the amount of secondary power available to relatively low levels, with only 2,839,982,000 kilowatt hours consumed in Canada in 1949 and 2,893,384,000 in 1950. During 1951 an advance is indicated over 1950 with the record addition of new hydro plant capacity during 1950 and a currently good water supply, although increasing industrial and domestic requirements, still threaten to strain existing facilities, particularly in Southern Ontario.

During 1949, as illustrated on page 3, the pulp and paper industry continued as the largest overall consumer of electrical energy although the metal smelting and refining industry, of which the aluminium group is the leader, surpassed the pulp and power industry as a customer of the central electric stations. Nearly 18 p.c. of station output was delivered to the pulp and paper group compared with 19 p.c. in 1948, whereas the metal smelting and refining took 19.2 p.c. during 1949 against 19.3 p.c. in 1948. Residential customers used 5,678,847,000 kilowatt hours in 1949 compared with 4,984,280,000 in 1948 and some 146 p.c. above the 2,310,891,000 kilowatt hours used in 1939 - a remarkable growth over the decade.

The net output of electric energy for secondary use in Canada each month is shown below:

SECONDARY POWER FOR USE IN CANADA  
(Thousands of Kilowatt Hours)

Month	1 9 4 5	1 9 4 6	1 9 4 7	1 9 4 8	1 9 4 9
January	545,019	680,016	591,531	227,866	143,678
February	506,380	645,940	566,473	211,963	136,002
March	618,420	728,074	629,033	167,122	157,140
April	674,236	735,281	539,236	255,006	453,584
May	623,467	758,487	574,708	433,290	499,246
June	560,819	679,995	546,714	216,772	382,419
July	491,774	669,444	485,508	150,748	199,735
August	481,841	661,116	385,453	147,229	124,006
September	450,404	589,653	362,825	111,420	137,703
October	545,700	641,481	434,161	114,191	228,065
November	574,349	649,611	265,024	126,923	189,875
December	573,415	628,389	215,678	141,457	188,529
TOTAL	6,645,824	8,067,487	5,595,344	2,303,987	2,839,982



For the following table, data covering the first 7 groups were taken from the industrial census reports on the industries; the consumption for "other industries" was computed by deduction, and consequently is only approximate. Ferro-alloys and steel furnaces are included under the heading of Primary Iron and Steel, which also covers pig iron and rolling mills. Purchases and generation of mining companies, previously with "other industries", have been segregated for 1949.

DISTRIBUTION AND CONSUMPTION OF ELECTRIC ENERGY GENERATED, 1949  
(Thousands of Kilowatt Hours)

Industries	Central Electric Station Power Purchased		Power Generated by the Industries for own use
	Total Central Electric Stn. Power	P.C. of Total Production	
Pulp and Paper .....	7,967,897	17.94	3,778,110
Primary Iron and Steel .....	1,759,724	3.96	117,704
Abrasives .....	719,187	1.62	-
Electro-Chemicals .....	1,552,716	3.49	115,152
Metal, Smelting & Refining .....	8,505,698	19.15	564,240
Other Manufacturing .....	4,462,633	10.05	1,323,184
Total Manufacturing .....	24,967,855	56.21	5,898,390
Mining * .....	2,030,071	4.57	263,835
Other Industries .....	1,889,310	4.25	
Domestic Service (Residential) .....	5,678,847	12.78	
Commercial Lighting .....	2,409,203	5.42	
Municipal Power .....	745,871	1.68	
Street Lighting .....	285,136	0.64	
Free Service .....	82,135	0.19	
Exports to U. S. A. ....	1,756,752	3.96	
Losses .....	4,573,393	10.30	
TOTAL OUTPUT OF CENTRAL ELECTRIC STATIONS	44,418,573	100.00	

\* Previously included with "Other Industries".

Electricity is exported from Canada only under licence granted by the Standards Branch of the Department of Trade and Commerce, and the same has jurisdiction over the export duty, which has been imposed since April 1, 1925. During the calendar year ended December 31, 1949, this export duty amounted to \$436,586.90. The rate on electric energy exported is three one-hundredths of one cent per kilowatt hour.



Below is a table showing the quantities of power exported for the calendar years 1948 and 1949. The data for this table were compiled from the reports of the Director of the Standards Branch, Department of Trade and Commerce.

KILOWATT HOURS EXPORTED TO THE UNITED STATES  
(Calendar Years 1948 and 1949)

Company	Exported	Exported
	1 9 4 8	1 9 4 9
	Kw. Hrs.	Kw. Hrs.
Hydro Electric Power Commission of Ontario .....	380,703,700	301,036,700
" " " " " " (surplus) - Niagara ...	197,860,500	298,762,100
" " " " " " " - Cornwall ..	33,430,000	36,379,000
Quebec Hydro Commission .....	650,290,533	648,903,932
Canadian Niagara Power Company, Ltd. ....	324,999,600	267,802,469
" " " " " (surplus) .....	73,190,585	39,560,210
Ontario and Minnesota Power Company .....	30,225,000	22,069,000
Maine and New Brunswick Electric Power Company .....	26,370,653	37,616,679
British Columbia Electric Railway Company, Ltd. ....	14,208,466	93,898,036
Northport Power and Light Company .....	38,284	47,016
Southern Canada Power Company .....	2,247,418	2,070,212
Canadian Cottons, Ltd. ....	60,480	-
Northern British Columbia Power Company .....	35,650	35,600
Fraser Companies, Ltd. ....	9,121,000	8,251,000
Detroit and Windsor Subway Company .....	326,900	319,800
<b>TOTAL .....</b>	<b>1,743,108,769</b>	<b>1,756,751,754</b>

Of the total Canadian output of 44,418,573,000 kilowatt hours in 1949, 42,779,199,000 kilowatt hours, or 96.3 per cent, were produced by water power, whereas only 1,456,007,000 kilowatt hours were produced by plants using only thermal engines and 183,367,000 kilowatt hours were produced by thermal auxiliary equipment in hydraulic plants and in non-generating plants.

Total hydraulic installations in all industries in Canada at the close of 1949, including active and inactive plants, as compiled by the Water Resources Division, Department of Resources and Development, were rated at 11,613,333 horse power. The available and developed water power in each province is shown below to the end of 1950.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24 hour Power at 80% Efficiency—end of 1950		Turbine Installation December 31	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1 9 4 9	1 9 5 0
	H.P.	H.P.	H.P.	H.P.
Newfoundland .....	1,135,000	2,585,000	(1) 262,050	262,810
Prince Edward Island .....	500	3,000	2,617	2,299
Nova Scotia .....	25,500	156,000	145,384	150,960
New Brunswick .....	123,000	334,000	133,347	133,111
Quebec .....	8,459,000	13,064,000	6,130,097	6,372,812
Ontario .....	5,407,200	7,261,000	2,896,540	3,513,840
Manitoba .....	3,309,000	5,344,000	557,700	595,200
Saskatchewan .....	542,000	1,082,000	111,835	111,835
Alberta .....	507,800	1,258,000	107,225	107,225
British Columbia .....	7,023,000	10,998,000	1,238,069	1,284,208
Yukon & Northwest Territories .....	382,500	814,000	28,469	28,450
CANADA .....	26,914,500	42,899,000	11,613,333	12,562,750

(1) Newfoundland added April 1, 1949.

The horse power figures based on flow in columns 2 and 3 are estimated only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established and represent only the minimum possibilities. Many water-powers of greater or less capacity from coast to coast have not yet been recorded, which will considerably increase the totals. With the construction of storage basins and other regulating works, these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity much greater than the theoretical continuous power of the waterfall and on this basis it is estimated that the maximum economic turbine installation capacity of the recorded water-powers of Canada was more than 55,000,000 horse power at the end of 1950. Vast reserves of power beckon industry still farther northward; and the distance that power can be economically transmitted is being increased well beyond 300 miles.

Figuratively, nearly every Canadian has the miracle of an "electric horse" at his command to help him do his work, to light his way, to chill or cook his food, to power his machine, to drive his tram or train, to bring him music, video and entertainment, to turn night into day, and do a thousand and one things with incredible speed and efficiency. The miracle of electricity has made possible our relatively high standard of living and the tremendous development of the past half century. It has sired our huge pulp and paper, aluminum chemical, electrical industries, atomic research, and so on. More than any one material factor, abundant electric power has made Canada industrially great and helped immeasurably to preserve us against aggression. And, in reserve, thundering down the white-maned falls and rapids of the hinterland, many millions of magic horse power await the harness of this and future generations.



TABLE 1 - (Page 14) - COMPARATIVE SUMMARY, 1939 - 1949

In the period from 1939 to 1949 the revenues of central electric stations have climbed from \$151,880,969 to \$280,311,624, an increase of 84.6 p.c., while electric energy generated advanced from 28,338 million kilowatt hours to nearly 44,419 million or by 56.7 p.c. The number of customers served also rose appreciably in all classes, with domestic consumers, including farm service, numbering 2,619,831 by 1949, an increase of 996,159 or 61 p.c. over the 10 year span. Average consumption improved 52 p.c. in a similar comparison for domestic customers.

With the steady expansion of publicly-owned facilities, municipal, provincial and federal systems secured 53.81 p.c. of total revenues for 1949 compared with 39.07 p.c. in 1939. Revenues reported by all distributors from domestic service brought \$90,302,748 for 1949 compared with \$79,920,367 in 1948 and \$43,793,482 in 1939. Commercial lighting produced \$49,074,643 or \$6,205,428 more than in 1948 while large power users, such as paper mills, smelters and factories, paid \$116,304,614 in 1949 against \$111,557,496 during the preceding year.

Expenses reported, which include only the four items - wages, fuel, taxes and cost of power purchased advanced to \$205,130,467 from \$180,210,931 in 1948. Taxes were up \$2,883,081 to \$28,311,095. Details are shown at the top of page 10, indicating a rise in municipal, provincial and federal taxes paid by both commercial and municipal stations over 1948. Salaries and wages totalled \$78,272,815 against \$68,765,222 as employees rose by 2,397 to 31,746. Cost of purchased power (interchanged between stations) increased from \$77,603,460 in 1948 to \$88,361,915. Fuel costs rose to \$10,184,642 from \$8,414,235 with the cost per ton of coal up and fuel consumption increased considerably.

Pole line mileage continued to advance at 135,329 miles compared with a revised 113,411 miles in 1948 and 98,530 miles in 1947. Customers numbered 3,076,369, an increase of 254,342 or 9 p.c. over 1948 and almost double the number served 20 years previous. In the same span the population of Canada rose only 35 p.c. Domestic (including farm) customers represented 85 p.c. of the national total in 1949.

Generation by all reporting stations during 1949 totalled 44,418,573,000 kilowatt hours, of which 1,756,752,000 were exported to the United States. Imports were 31,205,000 kilowatt hours mainly into British Columbia. Commercial stations generated 26,731,889,000 compared with 25,697,293,000 kilowatt hours in 1948 while municipal stations accounted for 17,686,684,000 or 39.8 p.c. of the national total in 1949 against 39.4 p.c. in the preceding year. The addition of Newfoundland plus new installations and improved precipitation in eastern regions contributed to the general advance over 1948.

However, municipal or publicly-owned stations purchased considerable of the output of commercial stations at wholesale and distributed it to their widespread customers. This is particularly true of Western Quebec where commercial stations, such as those of Gatineau Power and MacLaren deliver a large part of their production across the Ottawa River to the Ontario Hydro-Electric Power Commission system. Revenues of municipal stations were \$150,830,504 in 1949 compared with \$129,481,120 for commercial stations and the municipal group had almost twice as many customers as the commercial.

The total capacity of primary equipment in central station main plants registered an increase of about 6 p.c. from 1948, advancing from 10,038,541 to 10,637,798 horse power. Primary here signifies water wheels and turbines, steam and internal combustion engines used to operate generators, which in turn are classed as secondary power equipment.



(Note) Some comparisons with years previous to 1947 are affected by the Consolidated Mining and Smelting Company taking over the West Kootenay central electric plants 2, 3, 4 and 5 in British Columbia and absorbing the plants and their output as part of the mining and smelting industrial group.

TABLE 2 - (Page 16) - DOMESTIC SERVICE, 1939-1949

This table illustrates the steady growth in the number of domestic customers, total consumption, revenue, average consumption per customer and in the annual average bill over the period from 1939 to 1949, for Canada and in each province. Contrasting with these advances in the industry is the noteworthy decrease in revenue per kilowatt hour - a unique exception in an era of steeply rising prices. This is confirmed by the annual index numbers of cost of electricity for domestic service which dropped from 103.3 in 1939 (on the 1935-39 base of 100) to 85.7 in 1949.

In all provinces the number of domestic customers, including farms, registered encouraging gains during this period, the percentage increases ranging from 44 p.c. in Ontario to 88.9 p.c. in New Brunswick. The greater use of electricity is illustrated by the considerable advance in the average kilowatt hours purchased per customer with the Canada total at 2,168 kw. hrs. for 1949 compared with only 1,423 in 1939 - a rise of 52 p.c. Ontario's consumption rose over 55 p.c. per domestic customer from an average of 1,909 to 2,968 kw. hrs., but the average bill increased scarcely 23 p.c. The rate of consumption also rose steadily in all other provinces with the Maritimes, Quebec and British Columbia registering large increases. Revenues from domestic sales totalled \$90,302,748 in 1949, 106.2 p.c. or \$46,509,266 above the \$43,793,482 reported for 1939 and \$10,382,381 more than in 1948. The average annual consumption per domestic customer varied widely between provinces, Manitoba leading with a 1949 average of 4,694 kw. hrs., due mainly to flat rate water heaters, while New Brunswick at 1,000 kw. hrs. showed the lowest average. Ontario was second with 2,968 kw. hrs. followed by British Columbia with 1,850 and Quebec 1,347 kw. hrs.

Compared with the spectacular growth in consumption, the annual average bills registered only moderate year to year increases over the past eleven years. The 1949 average bill stood at \$34.47 against \$26.97 for 1939, an increase of 27.8 p.c., whereas consumption per customer rose over 52 p.c. Provincial bills ranged from \$56.54 for Prince Edward Island to \$26.44 for Newfoundland while average domestic service revenue per kilowatt hour in Canada was 1.59 cents in 1949, little changed from 1948 but 16.3 p.c. under the 1.9 cents per kilowatt hour received in 1939. The bills exclude federal, provincial or municipal taxes on electricity purchased. Prince Edward Island, New Brunswick, Saskatchewan and Alberta average revenues are affected by the higher costs of thermal generation from coal, etc., while the Manitoba revenue is lowest due to the widespread use of flat rate water heaters.

A comparison with other countries shows Canadians enjoy one of the lowest rates per kilowatt hour in the world. In the United States the average revenue per kilowatt hour sold to residential or domestic customers averaged 3.01 cents in 1949 against 1.59 cents per kilowatt hour in Canada. Commercial and industrial sales in the United States fetched 1.6 cents per kilowatt hour compared with 0.57 cents for Canada in the same year - almost two-thirds cheaper.

TABLE 3 - (Page 18) - POWER PLANTS

Generating stations are the individual power plants of the central electric organizations. Each building housing power-producing machinery is counted as a generating station. The commercial organizations are companies or individuals selling electric energy and the municipal group includes urban and rural municipalities, provincial commissions, etc. selling power. Those generating power may operate from one to

several power plants each, sometimes sited at different falls or rapids on the same river as the Gatineau, Ottawa, etc. The largest system serving 1,017 municipalities is the Ontario Hydro-Electric Power Commission which operated 58 hydraulic plants and owned one steam auxiliary plant in 1949. The auxiliary or standby plants are thermal power equipment belonging to hydraulic systems or non-generating systems and are not included as generating stations.

Of the 650 plants reporting operations during 1949, 341 were hydraulic, principally in Ontario, Quebec and British Columbia, while 309 were thermal situated mainly in Saskatchewan and Alberta. However, the hydraulic stations generated almost 97 p.c. of the power produced in Canada during the year. Newfoundland, which is shown in this report for the first time, reported only 1 fuel station but added 17 hydraulic stations to the 1948 Canada total.

TABLE 4 - (Pages 20-21) - REVENUES

Central electric stations report a division of customers, consumption and revenue according to the following headings: (1) farm service, (2) domestic service, which includes lighting and all other residential uses, (3) commercial light, (4) power, small, 50 kw. and under, (5) power, large, over 50 kw., (6) (beginning with 1946), power, municipal, mainly used in municipal water pumping stations, (7) sales to distributing companies, and (8) street lighting; and also, the quantity of electricity supplied free to public buildings, company towns, etc.

The revenue is the gross revenue less cost of power, or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province, the cost of such power is not deducted in computing provincial data, but is deducted in computing the national totals.

The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services for each station, but even here the use of electric stoves, space heaters, flat rate water heaters, the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission, and distribution all affect the rates. Domestic service data are discussed further at the end of the text. As might be expected, Quebec stations with their enormous sales to pulp and paper mills, aluminium plants, wholesale to Ontario, etc., showed a smaller proportion of revenue from domestic service than any other stations, excepting those in the Yukon - Northwest Territories, although greater in dollars than those in other provinces except Ontario. In computing the average total revenue per kilowatt hour, all line losses were included, but for domestic service and farm services, for commercial light, etc., line losses were not included, the consumptions for these services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold, including all line losses. The average revenues per kilowatt hour for domestic service are affected by the consumption per customer and by the relative quantities used for lighting, cooking and water heaters, etc.; often different rates apply to these varied services. In most municipalities, when the consumption increases, the average cost per kilowatt hour to the consumer decreases. Also, where flat rates apply to water heaters, the average cost per kilowatt hour for all domestic services is reduced and, as the number of flat rate heaters is increased, the average for the municipality or province is decreased, unless offset by increases in rates elsewhere. The average revenue of 1.59 cents per kilowatt hour for all domestic service, or 1.53 cents with farm service excluded, compares with an average of 3.01 cents in the United States, or nearly double the Canadian figure. Over 69 p.c. of U. S. generation in 1949 was by steam and internal combustion engine compared with



about 3.7 p.c. in Canada. The average revenues per horse power and per kilovolt ampere are affected by the classes of service and their relative importance in each province. Quebec stations sell large quantities of power to Ontario distributors. The Quebec stations are credited with the wholesale revenue and the Ontario stations with the retail revenue from this power. In computing the averages for Ontario stations, the equipment capacities shown in table 12 were increased one horse power for each 4,576 kilowatt hours imported from Quebec stations and one kilovolt ampere for each 6,136 kilowatt hours imported. This is only an estimate of the equipment and was based on the Ontario Hydro-Electric Power Commission's contracts with Quebec companies which call for 88 kilowatt hours per week for each horsepower purchased. It is probable this output may be a little too high for all the power imported from Quebec, and consequently the divisors are too small and the average revenues are too high. However, it is not likely the errors are large and the adjusted averages are more nearly comparable with the averages for the other provinces than the unadjusted averages as shown in reports previous to 1936. The imports into New Brunswick and Alberta are relatively so small that their effects on the averages would be negligible.

Provincial and municipal taxes on domestic bills, where imposed, have not been included as either revenue or expenses. In Quebec and Saskatchewan a 2 p.c. provincial tax was in effect while in British Columbia a sales tax of 3 p.c. was imposed on August 1, 1948. (For further details see "Index Numbers of Cost of Electricity, etc. 1949" published by D. B. S.)

TABLE 5 - (Pages 22-23) - EXPENSES

This table includes only the four expense items, (1) salaries and wages, (2) fuel, (3) taxes and (4) cost of purchased power. The last is an intra-industry expense and might be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. The cost of power item includes the cost to municipalities receiving their supply from provincial commissions as well as the interchange of power between generating stations and also between generating and non-generating. As explained above, the sales taxes on domestic bills have not been included in the taxes given in this table.

To supplement Table 5, the details of taxes reported by commercial and municipal stations follow on page 10. Only in the few cases, where the station absorbed the sales taxes, are such taxes included. Water rentals, also, are excluded. The Federal unemployment insurance tax did not apply generally to utility employees until September 1, 1943, and apparently some stations still did not include the employer payments as a Federal tax in 1949. Similarly, all stations did not include under taxes, the federal and provincial taxes on gasoline used by their vehicles, etc. It is common practice to treat sales tax as part of the cost of the commodity. The Federal tax included income and excess profits tax, tax on exports of electricity, and the two mentioned above. The greater part of the municipal tax paid by municipal stations, was tax payments continued by the Ontario Hydro-Electric Commission on plants acquired from commercial stations, and in Quebec export taxes and other taxes paid by the Quebec Hydro-Electric Commission, principally to the City of Montreal. In addition, the Quebec Commission was obligated to contribute \$2,240,000 to the provincial Education Fund, which item was not reported as a tax until 1947. Total taxes reported by the industry during 1949, including the contribution of Quebec Hydro, were \$28,311,095. Commercial stations paid 78.2 p.c. of the total.



REPORTED TAXES, 1949

Provinces	Commercial Stations				Municipal or Publicly Owned Stations			
	Municipal	Provincial	Federal	Total Taxes	Municipal	Provincial	Federal	Total Taxes
Newfoundland .....	20,746	6,742	161,573	189,061	-	-	196	196
P. E. Island .....	26,997	3,663	41,991	72,651	-	-	-	-
Nova Scotia .....	364,238	59,237	328,609	752,084	65,565	1,941	2,548	70,054
New Brunswick .....	63,721	30,592	121,297	215,610	385	106	-	491
Quebec .....	2,820,203	4,243,886	6,456,879	13,520,968	765,271	3,087,403	149,485	4,002,159
Ontario .....	566,553	307,920	1,359,563	2,234,036	717,258	184,574	550,953	1,452,785
Manitoba .....	167,837	3,172	12,538	183,547	143,349	-	21,515	164,864
Saskatchewan .....	32,600	8,896	127,150	168,646	88,966	10	-	88,976
Alberta .....	81,239	133,128	839,481	1,053,848	304,857	-	3,315	308,172
British Columbia ....	691,707	313,459	2,737,802	3,742,968	66,171	8,559	-	74,730
Yukon & N.W.T. ....	1,461	390	13,028	14,879	-	-	370	370
Total .....	4,837,302	5,111,085	12,199,911	22,148,298	2,151,822	3,282,593	728,382	6,162,797
Total-Commercial Stns.	4,837,302	5,111,085	12,199,911	22,148,298				
" -Municipal "	2,151,822	3,282,593	728,382	6,162,797				
Total .....	6,989,124	8,393,678	12,928,293	28,311,095				

TABLE 6 (Pages 24-25) - EMPLOYEES

There was an increase of 2,397 employees during the year with all provinces, excepting Quebec and British Columbia, reporting heavier employment. The total at 31,746 included 11,971 in commercial and 19,775 employees in municipal stations. Some 24,226 were engaged in generating stations and 7,520 in non-generating or distributive organizations. Employment totals are based on the average number of employees per month. The decline in British Columbia was due to one company overstating 1948 averages. Newfoundland added 343 to the national total.

On a provincial basis, 41.1 p.c. of the national total were employed in Ontario, 24.5 p.c. in Quebec, 8.2 p.c. in British Columbia, 15.3 p.c. on the Prairies and 10.9 p.c. in the Atlantic Provinces. Some 9,944 employees were on salaries while 21,802 were on wages. Among the generating stations, hydraulic operations required 21,069 employees, while fuel stations producing but 3.3 p.c. of the electric energy generated during 1949 employed 3,157 persons, indicating one reason for higher unit costs in thermal plants.

TABLE 7 (Pages 26-27) - CUSTOMERS

As outlined under Table 4, stations report a segregation of customers into seven classes, but in the past many stations included farm customers with domestic customers, and in the Bureau's reports all customers in these two classes consequently were combined under "Domestic Customers". On Page 11 is a table giving the farm customers as reported, together with the respective consumptions and revenues received from them. Such revenues do not include taxes paid by the consumer, as previously explained. Due to the increasing activity in rural electrification, it is probable that current data are more comprehensive than previously reported. Farm customers added during 1949 totalled 37,661 and the total at 250,866 was up 17.7 p.c. over 1948. Farm and residential services are combined under "Domestic" in tables 2, 4, 7 and 12 as in previous years for comparative purposes. The relatively large number of farm customers and the low average revenue per kilowatt hour in Ontario reflects the assistance given by the Ontario Government to this class of service. The number of farm customers in Ontario for years previous to 1944 included rural customers in hamlets. With over 725,000 rural farms in Canada, the total of 250,866 farm customers indicates that about 35 p.c.

enjoyed the benefits of power line service at the end of 1949 compared with probably four-fifths of the farms in the United States. However, many other Canadian farms generate their own electricity by the use of engines, windmills, etc. The continued extension of farm electrification, which had been delayed by World War 11, will add considerably to consumption totals and represents a great potential market for electrical appliances and equipment as well as power. Electricity is the cheapest and most efficient labor the farmer can hire.

FARM SERVICE, 1949

Province	Number of Customers	Kilowatt Hours	Revenue	Kw. Hrs. per Customer	Average <sup>(1)</sup> Annual Bill	Revenue <sup>(1)</sup> per Kr. Hr.	P.C. of Total Farm Service Consumption
			\$		\$	\$	%
Prince Edward Island	3,860	2,514,369	161,243	651	41.77	6.4	0.57
Nova Scotia	13,533	11,486,027	484,008	849	35.77	4.2	2.61
New Brunswick	* 28,490	20,181,747	1,000,490	708	35.12	5.0	4.59
Quebec	74,857	62,382,972	2,089,400	833	27.91	3.3	14.19
Ontario	106,134	293,267,952	4,806,085	2,763	45.28	1.6	66.72
Manitoba	11,155	23,570,763	780,295	2,113	69.95	3.3	5.36
Saskatchewan	2,299	2,022,198	146,742	880	63.83	7.3	0.46
Alberta	5,017	10,677,838	437,336	2,128	87.17	4.1	2.43
British Columbia	5,521	13,466,446	309,720	2,439	56.10	2.3	3.07
Canada	250,866	439,570,312	10,215,319	1,752	40.72	2.3	100.00

(1) Federal, Provincial and Municipal taxes on the electricity purchased are not included.

\* Revised basis, not comparable with years previous to 1948.

Note: No farm service reported separately in Yukon - N.W.T. or Newfoundland.

TABLE 8 - POLE LINE MILEAGE - (Pages 28-29)

Transmission and distribution lines are combined in this table and a division has been made showing the mileage on steel towers and poles, wooden poles, concrete poles and in submarine and underground cables. The last includes systems in cities and lines laid in trenches along the roadside serving rural customers. The steel towers and steel poles are used almost exclusively for high voltage transmission lines and only Quebec, Ontario and Manitoba have extensive mileage.

TABLES 9 - 10 - 11 - EQUIPMENT - (Pages 28-33)

The equipment of the power houses has been divided into two classes: main plant, and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using thermal equipment only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 181,822,000 kilowatt hours being generated during the year by this auxiliary equipment. As mentioned on page 1, equipment which is not used



primarily for the central electric station industry has been omitted from the current compilation.

TABLE 12 - ELECTRIC ENERGY GENERATED (Pages 34-35)

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the ultimate consumers. The Kv.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plants of generating stations. The ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio is affected by other factors; one is the relationship of installed capacity to water available for hydraulic plants. This changes from month to month and from year to year while another factor is the production and sale of secondary power. A market for secondary power makes possible a greater production of kilowatt hours per unit of capacity than a market of firm power for the same installation. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale grew quite rapidly, especially up to 1937. After the outbreak of the war the supply of surplus power was greatly reduced and with war industries working twenty-four hours per day, the supply of off-peak power was also considerably curtailed so that sales of secondary power showed a steady decrease up to the middle of 1943. However, they then began to increase and continued the upward trend throughout 1944, 1945 and 1946. Subsequent to August, 1946, declining amounts of secondary power were available and production, as reported monthly, dropped from 9,141,804,000 in 1946 to 6,233,861,000 kilowatt hours in 1947, and to a low of 2,610,308,000 in 1948, but recovered to 3,279,886,000 in 1950 as supply conditions improved with the addition of new plants and heavier snow and rainfall.

TABLE 13 - FUEL (Pages 36-37)

Fuel used was principally domestic or local coal, oil and manufactured gas with stations in the Maritimes, Saskatchewan and Alberta, the largest users. The value of Canadian bituminous and sub-bituminous coal was 55.4 p.c. of the total fuel bill; fuel oil and diesel oil accounted for 32.2 p.c., and lignite coal, gasoline, gas, etc., the remainder. Fuel consumed was valued at \$10,184,642 compared with \$8,414,235 in 1948. All coal consumed cost an average of \$5.43 per ton as against \$5.14 one year earlier, while fuel and diesel oil was down from 9.99 cents to 9.50 cents a gallon. Coal cost per ton had risen 81 p.c. since 1939 and oil 39 p.c. per gallon.

DOMESTIC SERVICE

In the following table, data on domestic customers are brought together and analysed. As might be expected the provinces with relatively high percentages of rural populations, Newfoundland, Prince Edward Island, Saskatchewan, Alberta and the Yukon - N.W.T. show the lowest number of customers per 100 population. The average cost per kilowatt hour is greatly affected by the nature of the use. Manitoba's low unit cost and high average consumption are influenced by flat rate water heaters and extensive use for cooking in Winnipeg; these induce high consumption per customer. There was also a large number of flat rate water



heaters in Ontario. Further, where hydro-electric power is plentiful, the rates are generally low and the average consumption high. The very low percentage of total power used by domestic customers in Quebec is affected by large exports to Ontario and heavy consumption by pulp and paper, aluminium and other electric metallurgical plants.

During 1949 domestic customers in Ontario consumed 54.2 per cent of the total power used by all domestic customers in Canada, whereas the population of this province was less than a third of the total for the nation.

The average bills do not include federal, provincial and municipal sales taxes paid by the consumers.

(1)  
DOMESTIC SERVICE

1 9 4 9

Province	Number of Customers		Average Bill for Year	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	P.C. of (2) total Power used in Province	P.C. of total Domestic Power used in Canada
			\$	¢	Kw. Hrs.	Kw.Hrs.		
Newfoundland	28,725	8.25	26.44	2.38	1,111	92	15.90	0.56
P. E. Island	8,966	9.54	56.54	5.37	1,052	100	37.81	0.17
Nova Scotia	107,516	16.67	36.97	3.11	1,187	198	17.93	2.25
New Brunswick	87,827	17.02	38.12	3.81	1,000	170	14.19	1.55
Quebec	741,941	19.09	27.47	2.04	1,347	257	4.99	17.59
Ontario	1,036,705	23.50	33.58	1.13	2,968	698	20.20	54.18
Manitoba	131,284	16.87	51.88	1.11	4,694	792	23.47	10.85
Saskatchewan	87,987	10.22	47.41	3.95	1,199	123	26.83	1.86
Alberta	121,440	13.94	38.00	3.54	1,073	150	16.07	2.29
British Columbia	265,835	23.86	40.62	2.20	1,850	442	24.26	8.66
Yukon & N.W.T.	1,605	6.69	77.65	6.01	1,292	86	4.61	0.04
Canada	2,619,831	19.34	34.47	1.59	2,168	419	15.90	100.00

(1) Includes Farm Customers.

(2) Including line and transformer losses.

TABLE 1 - COMPARATIVE SUMMARY, 1939 - 1949

PRINCIPAL DATA BY CLASS OF STATION	1949	1948	1947	1946	1945
<b>ELECTRIC POWER PLANTS (Generating)</b>					
Total .....	650	655	607	600	600
Hydraulic .....	341	309	310	305	302
Fuel .....	309	326	297	295	298
Commercial .....	391	395	377	397	392
Municipal .....	259	242	250	203	208
<b>CAPITAL</b>					
Total .....	Data not collected				
Commercial .....					
Municipal .....					
Generating .....					
Non-generating .....					
<b>REVENUE (1)</b>			(4)		
Total .....	280,511,624	257,377,490	245,705,976	226,096,273	215,105,473
Commercial .....	129,481,120	119,032,951	114,659,557	108,668,772	101,672,511
Municipal .....	150,830,504	138,344,539	129,066,419	117,427,501	113,432,962
Generating .....	246,086,487	224,985,155	213,904,209	192,214,412	185,227,685
Non-generating .....	34,225,137	32,394,335	29,801,767	33,881,861	31,877,788
<b>EXPENSES (2)</b>			(4)		
Total .....	205,150,467	180,210,951	177,359,696	156,708,176	135,104,091
Commercial .....	79,560,846	70,316,885	67,279,703	67,664,274	60,893,580
Municipal .....	125,569,621	109,894,046	110,079,993	89,043,902	74,210,511
Generating .....	136,881,078	120,889,466	122,714,865	100,708,844	83,556,610
Non-generating .....	68,249,389	59,321,465	54,644,831	55,999,352	51,767,481
<b>POLE LINE MILEAGE</b>					
Total .....	135,329	(4) 113,411	98,530	89,231	85,178
Commercial .....	49,086	41,251	35,891	33,184	31,117
Municipal .....	86,243	72,160	62,639	56,047	52,061
Generating .....	106,396	90,810	79,761	71,936	66,694
Non-generating .....	28,933	22,601	18,769	17,295	16,484
<b>CUSTOMERS</b>					
Total .....	3,076,369	2,822,027	2,643,327	2,476,830	2,333,230
Domestic service (5) .....	2,619,851	2,398,847	2,246,253	2,104,549	1,987,380
Commercial light .....	379,526	349,673	326,988	306,592	285,402
Power (small) .....	58,600	56,210	53,604	50,254	46,955
Power (large) .....	14,208	13,305	12,825	11,846	10,955
Power (municipal) .....	964	890	838	887	-
Street lighting .....	3,240	3,102	2,819	2,702	2,558
Commercial stations .....	1,042,951	937,385	870,408	826,091	766,554
Municipal stations .....	2,033,418	1,884,842	1,772,919	1,650,759	1,566,676
Generating stations .....	1,934,639	1,741,055	1,616,520	1,354,763	1,256,095
Non-generating stations .....	1,141,730	1,080,972	1,026,807	1,122,067	1,077,135
<b>ELECTRIC ENERGY GENERATED</b>					
Total Kilowatt Hours (thousands) .....	44,418,573	42,389,681	43,424,799	41,756,987	40,130,054
Commercial .....	26,751,889	25,697,293	27,665,524	28,997,716	25,530,857
Municipal .....	17,686,684	16,692,388	15,759,275	14,759,271	14,599,197
Exports to the United States .... (Thousands).. Kw.h.	1,756,752	1,743,108	2,066,487	2,481,651	2,646,435
Imports from the United States .. (Thousands).. Kw.h.	31,205	86,391	53,037	9,527	15,916
<b>EQUIPMENT IN GENERATING STATIONS (Main Plant only)</b>					
Total Primary Power .....	10,637,798	10,038,541	9,601,157	9,825,459	9,666,947
Total in commercial stations .....	6,429,303	6,045,218	5,936,125	6,301,996	6,294,121
Total in municipal stations .....	4,208,495	3,993,323	3,665,032	3,523,463	3,372,826
Total Secondary Power .....	8,890,292	8,379,039	7,984,488	8,162,896	8,035,787
Total in commercial stations .....	5,404,088	5,064,811	4,950,862	5,233,480	5,227,037
Total in municipal stations .....	3,486,204	3,314,228	3,033,626	2,929,416	2,808,750
<b>AUXILIARY PLANT EQUIPMENT</b>					
Primary power .....	245,478	181,055	184,930	176,253	175,312
Secondary power .....	213,410	155,470	154,199	149,462	146,556

(1) Cost of power interchanged between stations excluded from revenue of purchasing stations (see page 8).

(2) Includes wages, cost of power, fuel and taxes, but not other expenses.

(3) Farm service is included with domestic service.

(4) Revised.



TABLEAU 1 - SOMMAIRE COMPARATIF, 1939-1949

1945	1942	1941	1940	1939	DONNEES PRINCIPALES PAR CLASSES D'USINES
622 522 500 425 197	616 520 296 428 188	607 513 294 424 185	602 513 289 421 181	611 513 298 427 184	<u>USINES ELECTRIQUES (Génératrices)</u> <u>Total</u> Hydrauliques A combustible Commerciales Municipales
1,778,224,640 1,149,225,710 628,998,930 1,584,624,501 195,600,139	1,747,891,798 1,127,978,532 619,913,466 1,559,495,588 188,596,410	1,641,460,451 1,054,714,025 586,746,426 1,459,900,540 181,559,911	1,615,458,140 1,049,506,904 565,951,236 1,440,026,870 175,411,270	1,564,603,211 1,014,704,665 549,898,546 1,396,858,921 167,764,290	<u>CAPITAL</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
204,801,508 124,730,993 80,070,515 175,217,757 29,583,751	205,855,565 124,611,713 79,223,652 175,916,640 29,918,725	186,018,040 111,851,778 74,166,262 157,285,409 28,734,651	166,228,775 99,887,052 66,341,721 139,673,592 26,555,381	151,880,969 92,535,049 59,545,920 127,483,222 24,597,747	<u>RECETTES (1)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
155,555,469 72,579,621 62,975,848 81,500,674 54,054,795	152,581,418 71,153,582 61,448,036 80,171,586 52,409,852	117,758,977 60,561,621 57,197,356 69,148,515 48,610,464	105,044,158 51,990,160 55,053,998 60,752,761 44,291,397	91,982,572 42,471,554 49,510,858 51,570,137 40,412,255	<u>DEPENSES (2)</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
78,063 52,085 45,978 61,710 16,553	77,909 51,847 46,062 61,927 15,982	77,253 51,442 45,811 61,495 15,758	75,050 50,933 44,117 59,676 15,374	72,152 50,288 41,844 57,084 15,048	<u>LIGNES SUR POTEAUX</u> <u>Total</u> Commerciales Municipales Génératrices Non-génératrices
2,164,861 1,848,080 259,640 44,948 9,772 - 2,421 1,005,516 1,159,545 1,129,272 1,035,589	2,125,304 1,803,708 264,706 44,813 9,673 - 2,404 985,059 1,140,245 1,103,539 1,021,765	2,081,270 1,755,917 268,977 44,071 9,934 - 2,371 954,906 1,126,564 1,079,233 1,002,057	2,006,508 1,686,388 265,175 45,138 9,490 - 2,317 926,093 1,088,415 1,032,433 982,075	1,941,663 1,623,672 262,590 45,896 9,267 - 2,258 889,418 1,052,245 998,067 943,596	<u>ABONNES</u> <u>Total</u> Service domestique (5) Eclairage commercial Force motrice (petite) Force motrice (grosse) Energie (municipale) Eclairage des rues Usines commerciales Usines municipales Usines génératrices Usines non-génératrices
40,479,593 51,082,259 9,597,554	57,555,179 28,177,587 9,177,792	55,517,663 24,793,715 8,525,948	50,109,285 22,287,270 7,822,015	28,558,030 21,290,930 7,047,100	<u>ENERGIE ELECTRIQUE GENEREE</u> <u>Total Kw. heures générés (milliers)</u> Commerciale Municipale
2,545,058 599	2,453,739 594	2,354,229 670	2,152,129 655	1,908,756 666	Exportations d'électricité aux Etats-Unis ..... (milliers) Kw.h. Importations d'électricité des Etats-Unis ..... (milliers) Kw.h.
9,602,794 7,239,936 2,362,858 7,982,027 6,074,895 1,907,132	8,613,696 6,269,386 2,544,510 7,256,927 5,366,769 1,890,158	8,157,585 5,917,160 2,240,425 6,851,785 5,054,727 1,797,058	7,935,867 5,708,664 2,227,203 6,691,211 4,906,268 1,784,943	7,607,122 5,385,632 2,221,490 6,455,416 4,654,745 1,780,671	<u>MACHINERIE DANS LES USINES GENERATRICES</u> (Usines principales seulement) Total force motrice primaire ..... H.P. Total dans les usines commerciales ... H.P. Total dans les usines municipales ... H.P. Total force motrice secondaire ..... Kv.A. Total dans les usines commerciales .. Kv.A. Total dans les usines municipales ... Kv.A.
194,822 166,010	194,966 166,236	194,651 166,021	194,914 166,367	194,139 165,785	<u>OUTILLAGE D'USINES AUXILIAIRES</u> Force motrice primaire ..... H.P. Force motrice secondaire ..... Kv.A.

(1) Le coût de l'énergie échangée entre stations est exclu du revenu des stations en faisant l'achat (Voir p. 8).

(2) Incluent gages, coût de l'énergie, combustible et taxes, mais non les autres dépenses.

(3) L'éclairage des fermes est inclus dans l'éclairage domestique.

(4) Revisé.



TABLE 2 - DOMESTIC SERVICE, 1939 - 1949

Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
Année	Nombre d'usagers	Kilowatt heures consommés	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
		(000)	\$	kw. hrs.	\$	r
CANADA .....						
1939	1,623,672	2,310,891	43,793,482	1,423	26.97	1.90
1941	1,755,917	2,582,405	48,683,162	1,471	27.73	1.89
1943	1,852,367	2,843,612	51,307,781	1,535	27.70	1.80
1945	1,987,360	3,365,497	55,735,696	1,685	28.05	1.66
1946	2,104,549	3,881,677	62,830,120	1,844	29.85	1.62
1947	2,246,253	4,383,222	70,258,591	1,951	31.28	1.60
1948	2,398,847	4,984,280	79,920,367	2,078	33.32	1.60
1949	2,619,831	5,678,847	90,302,748	2,168	34.47	1.59
Change (Changement) 1939-1949						
Amount (Volume)	996,159	3,367,956	46,509,266	745	7.50	- 0.21
Per cent (p.c.)	61.35	145.74	106.20	52.25	27.81	-16.32
NEWFOUNDLAND .....	28,725	31,906	759,347	1,111	26.44	2.38
PRINCE EDWARD ISLAND .....						
1939	5,067	2,908	163,226	574	32.21	5.61
1941	5,531	3,483	183,090	630	33.10	5.26
1943	5,715	3,895	217,914	682	38.13	5.59
1945	6,387	5,217	238,538	817	37.35	4.57
1946	6,882	6,017	274,082	874	39.83	4.56
1947	7,372	6,917	369,805	938	50.16	5.35
1948	8,075	8,341	454,741	1,033	56.31	5.45
1949	8,966	9,433	506,897	1,052	56.54	5.37
Change (Changement) 1939-1949						
Amount (Volume)	3,899	6,525	343,671	478	24.33	- 0.24
Per cent (p.c.)	76.95	224.38	210.55	83.28	75.54	- 4.28
NOVA SCOTIA .....						
1939	62,034	39,084	1,709,507	630	27.56	4.37
1941	69,997	48,357	2,065,057	691	29.50	4.27
1943	75,957	57,324	2,156,852	755	28.40	3.76
1945	84,011	70,099	2,286,358	834	27.21	3.26
1946	89,484	82,696	2,660,287	924	29.73	3.22
1947	96,231	94,135	2,923,631	978	30.38	3.11
1948	102,837	110,981	3,488,141	1,079	33.92	3.14
1949	107,516	127,666	3,974,574	1,187	36.97	3.11
Change (Changement) 1939-1949						
Amount (Volume)	45,482	88,582	2,265,067	557	9.41	- 1.26
Per cent (p.c.)	73.52	226.65	132.50	88.41	34.14	-28.83
NEW BRUNSWICK .....						
1939	46,485	26,989	1,307,772	581	28.13	4.85
1941	52,871	31,234	1,435,015	591	27.16	4.59
1943	56,239	35,294	1,661,550	628	29.54	4.71
1945	62,175	45,958	1,883,374	739	30.29	4.10
1946	67,479	51,377	2,076,400	761	30.77	4.04
1947	74,854	63,728	2,484,545	851	33.19	3.90
1948	80,270	67,749	2,806,668	844	34.97	4.14
1949	87,827	87,846	3,348,391	1,000	38.12	3.81
Change (Changement) 1939-1949						
Amount (Volume)	41,342	60,857	2,040,619	419	9.99	- 1.04
Per cent (p.c.)	88.94	225.49	156.04	72.12	35.51	-21.44
Quebec .....						
1939	434,825	311,420	9,167,384	716	21.08	2.94
1941	473,547	342,627	10,100,300	724	21.33	2.95
1943	507,765	398,305	10,791,660	784	21.25	2.71
1945	558,865	507,274	11,925,494	908	21.34	2.35
1946	590,125	596,693	13,401,463	1,011	22.71	2.25
1947	631,597	692,335	15,156,347	1,096	24.00	2.19
1948	681,967	830,445	17,537,147	1,218	25.72	2.11
1949	741,941	999,216	20,379,739	1,347	27.47	2.04
Change (Changement) 1939-1949						
Amount (Volume)	307,116	687,796	11,212,355	631	6.39	- 0.90
Per cent (p.c.)	70.63	220.86	122.31	88.13	30.31	-30.61

TABLEAU 2 - SERVICE DOMESTIQUE, 1939 - 1949

	Year	Number of Customers	Kilowatt Hours Consumed	Revenue	Kw. Hours per Customer	Average Annual Bill	Revenue per Kilowatt Hour
	Année	N mbre d'usagers	Kilowatt heures consommées	Recettes	Consommation moyenne annuelle par usager	Compte moyen de l'année	Moyenne par kilowatt heure
			(000)	\$	kw.hrs.	\$	¢
Ontario .....	1939	719,871	1,374,325	19,657,658	1,909	27.31	1.43
	1941	772,153	1,546,189	21,980,031	2,002	28.47	1.42
	1943	801,430	1,682,562	23,000,644	2,099	28.70	1.37
	1945	839,968	1,963,043	23,699,446	2,337	28.21	1.21
	1946	876,761	2,269,006	26,314,259	2,587	30.01	1.16
	1947	918,770	2,533,594	29,046,165	2,758	31.61	1.15
	1948	969,234	2,799,781	32,421,793	2,889	33.45	1.16
	1949	1,036,705	3,076,688	34,813,383	2,968	33.58	1.13
Change (Changement) 1939-1949							
Amount (Volume)		316,834	1,702,363	15,155,725	1,059	6.27	- 0.30
Per cent (p.c.)		44.01	123.87	77.10	55.47	22.96	-20.98
MANITOBA .....	1939	81,091	320,827	3,311,662	3,956	40.84	1.03
	1941	85,106	343,041	3,472,277	4,031	40.80	1.01
	1943	88,528	374,169	3,712,351	4,226	41.93	0.99
	1945	94,673	416,499	4,237,484	4,399	44.76	1.02
	1946	103,204	457,464	4,680,853	4,433	45.36	1.02
	1947	116,570	501,744	5,414,994	4,304	46.45	1.08
	1948	119,574	553,430	5,883,853	4,628	49.21	1.06
	1949	131,284	616,272	6,810,980	4,694	51.88	1.11
Change (Changement) 1939-1949							
Amount (Volume)		50,193	295,445	3,499,318	738	11.04	+ 0.08
Per cent (p.c.)		61.90	92.09	105.67	18.66	27.03	+ 7.77
SASKATCHEWAN .....	1939	49,980	41,198	2,004,433	824	40.10	4.87
	1941	52,695	45,448	2,173,255	862	41.24	4.78
	1943	55,500	48,996	2,257,885	883	40.68	4.61
	1945	61,285	58,402	2,565,796	953	41.87	4.39
	1946	67,336	68,530	2,940,165	1,018	43.66	4.29
	1947	73,625	76,152	3,248,282	1,034	44.12	4.27
	1948	80,614	89,871	3,675,447	1,115	45.59	4.09
	1949	87,987	105,522	4,171,599	1,199	47.41	3.95
Change (Changement) 1939-1949							
Amount (Volume)		38,007	64,324	2,167,166	375	7.31	- 0.92
Per cent (p.c.)		76.04	156.13	108.12	45.51	18.23	-18.89
ALBERTA .....	1939	68,267	42,210	2,145,093	618	31.42	5.08
	1941	72,422	47,572	2,393,189	657	33.05	5.03
	1943	77,810	52,100	2,514,031	670	32.31	4.83
	1945	87,005	63,962	2,932,410	735	33.70	4.59
	1946	92,461	75,756	3,166,731	819	34.25	4.18
	1947	100,134	88,366	3,472,789	882	34.68	3.93
	1948	108,717	107,548	3,999,670	989	36.79	3.72
	1949	121,440	130,328	4,614,214	1,073	38.00	3.54
Change (Changement) 1939-1949							
Amount (Volume)		53,173	88,118	2,469,121	455	6.58	- 1.54
Per cent (p.c.)		77.89	208.76	115.11	73.62	20.94	-30.31
BRITISH COLUMBIA .....	1939	156,052	151,930	4,326,747	974	27.73	2.85
	1941	171,635	174,454	4,880,948	1,016	28.44	2.80
	1943	179,136	190,967	4,994,894	1,066	27.88	2.62
	1945	192,991	235,043	5,966,796	1,218	30.92	2.54
	1946	210,817	274,138	7,305,880	1,300	34.66	2.67
	1947	227,100	326,251	8,142,033	1,437	35.85	2.50
	1948	246,025	414,850	9,533,260	1,686	38.75	2.30
	1949	265,835	491,897	10,799,002	1,850	40.62	2.20
Change (Changement) 1939-1949							
Amount (Volume)		109,783	339,967	6,472,255	876	12.89	- 0.65
Per cent (p.c.)		70.35	223.77	149.59	89.94	46.48	-22.81
YUKON AND NORTHWEST TERRITORIES							
1948		1,534	1,284	119,647	837	78.00	9.32
1949		1,605	2,073	124,622	1,292	77.65	6.01

■ Included with British Columbia up to and including 1947.  
■ Compris dans Colombie-Britannique jusqu'à 1947 inclus.

TABLE 3 - ELECTRIC POWER PLANTS, 1949

	Canada	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	
Total number of generating stations .....	650	18	8	49	18	
Per cent of total for Canada .....	100.00	2.77	1.23	7.54	2.77	
COMMERCIAL .....	391	17	7	21	6	
Hydraulic .....	200	17	4	14	4	
Fuel .....	191	-	3	7	2	
MUNICIPAL .....	259	1	1	28	12	
Hydraulic .....	141	-	-	22	3	
Fuel .....	118	1	1	6	9	
With water wheels and turbines .....	341	17	4	36	7	
With steam engines only .....	14	-	-	-	1	
With steam turbines only .....	31	-	1	6	3	
With gas or oil engines only .....	257	1	3	5	6	
With both steam engines and turbines .....	5	-	-	1	1	
With both steam and gas or oil engines .....	2	-	-	1	-	
With alternating current dynamos only .....	552	18	7	49	17	
With direct current dynamos only .....	90	-	1	-	1	
With both alternating and direct current dynamos ...	9	-	-	-	-	
COMMERCIAL ORGANIZATIONS .....	X 379	8	5	18	14	
Number generating power .....	255	7	5	12	6	
Number buying power for redistribution .....	124	1	-	6	8	
MUNICIPALITIES .....	X 492	1	1	21	11	
Number generating power .....	81	1	1	7	2	
Number buying power for redistribution .....	411	-	-	14	9	
AUXILIARY PLANTS .....	67	4	2	3	7	
To hydraulic stations .....	56	4	2	1	2	
To non-generating stations .....	11	-	-	2	5	

X - Organizations operating in two or more provinces are shown under provinces, but are included in total as only one organization.

⌘ - Included with British Columbia up to and including 1947.



TABEAU 3 - USINES GÉNÉRATRICES, 1949

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	
99	130	13	135	89	86	5	<u>Nombre d'usines génératrices</u>
15.23	20.00	2.00	20.77	13.69	13.23	0.77	Pourcentage du total pour le Canada
76	45	8	77	79	51	4	<u>COMMERCIALES</u>
70	40	3	1	14	31	2	Hydrauliques
6	5	5	76	65	20	2	A combustible
23	85	5	58	10	35	1	<u>MUNICIPALES</u>
21	79	3	-	-	12	1	Hydrauliques
2	6	2	58	10	23	-	A combustible
91	119	6	1	14	43	3	Avec roues et turbines hydrauliques
1	3	1	-	4	4	-	Avec machines à vapeur seulement
1	1	-	6	7	6	-	Avec turbines à vapeur seulement
6	7	6	127	63	31	2	Avec moteurs à gaz ou à pétrole seulement
-	-	-	1	1	1	-	Avec machines et turbines à vapeur à la fois
-	-	-	-	-	1	-	Avec machines à vapeur à gaz et à pétrole
98	128	12	73	66	78	5	Avec dynamos à courant alternatif seulement
1	2	1	60	19	5	-	Avec dynamos à courant direct seulement
-	-	-	2	4	3	-	Avec dynamos à courant alternatif et direct
72	63	13	80	67	44	7	<u>USINES COMMERCIALES</u>
33	30	6	77	50	32	4	Nombre d'usines génératrices
39	33	7	3	17	12	3	Nombre d'usines achetant de l'électricité pour la revendre
38	344	8	32	15	24	1	<u>MUNICIPALITES</u>
14	15	3	24	8	9	1	Nombre d'usines génératrices
24	329	5	8	7	15	-	Nombre d'usines achetant de l'électricité pour la revendre
9	14	2	-	8	17	1	<u>USINES AUXILIAIRES</u>
8	13	1	-	8	17	-	Aux usines hydrauliques
1	1	1	-	-	-	1	Aux usines non-génératrices

X - Les compagnies exploitant des usines dans deux ou plusieurs provinces sont inscrites au chapitre des provinces, mais n'apparaissent qu'une fois dans le total.

\* - Compris dans Colombie-Britannique jusqu'à 1947 inclus.

TABLE 4 - REVENUE, 1949

	Canada	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$	\$
<u>REVENUE FROM SALE OF ELECTRIC ENERGY</u> .....	280,311,624	1,924,622	902,629	10,979,030	7,828,477	104,323,396
For domestic service .....	90,302,748	759,347	506,897	3,974,574	3,348,391	20,379,739
For commercial light .....	49,074,643	388,619	239,437	2,306,138	1,555,810	12,663,877
For power (small) .....	14,058,467	235,130	55,251	1,317,288	624,667	3,010,830
For power (large) .....	116,304,614	487,254	53,722	3,069,664	2,052,139	65,800,747
For power (municipal) .....	4,475,824	750	29,418	49,381	55,381	999,809
For street lighting .....	6,095,328	53,522	17,904	281,985	192,089	1,460,394
<u>REVENUE OF COMMERCIAL STATIONS</u> .....	129,481,120	1,916,812	709,553	7,756,557	2,680,828	67,890,394
Non-generating .....	3,707,883	3,403	-	891,998	722,666	425,677
Generating .....	125,773,237	1,913,409	709,553	6,864,559	1,958,162	67,464,717
Hydraulic .....	114,272,476	1,913,409	35,650	1,483,668	1,770,290	67,228,607
Fuel .....	11,500,761	-	673,903	5,380,891	187,872	236,110
<u>REVENUE OF MUNICIPAL STATIONS</u> .....	150,830,504	7,810	193,076	3,222,473	5,147,649	36,433,002
Non-generating .....	30,517,254	-	-	499,504	1,067,301	1,170,713
Generating .....	120,313,250	7,810	193,076	2,722,969	4,080,348	35,262,289
Hydraulic .....	103,637,713	-	-	2,456,866	288,115	35,224,529
Fuel .....	16,675,537	7,810	193,076	266,103	3,792,233	37,760
Revenue of non-generating stations .....	34,225,137	3,403	-	1,391,502	1,789,967	1,596,390
Revenue of generating stations .....	246,086,487	1,921,219	902,629	9,587,528	6,038,510	102,727,006
Revenue of hydraulic stations .....	217,910,189	1,913,409	35,650	3,940,534	2,058,405	102,453,136
Revenue of fuel stations .....	28,176,298	7,810	866,979	5,646,994	3,980,105	273,870
Average revenue per H.P. of primary power .....	26.35	35.01	90.02	44.96	41.94	18.23
Average revenue per H.P. in main and auxiliary plants ...	25.76	34.39	86.57	44.59	40.07	18.10
Average revenue per Kv.A. of dynamo capacity .....	31.53	41.56	118.15	52.66	48.60	21.40
Average revenue per Kv.A. in main and auxiliary plants ..	30.79	40.76	114.23	52.25	46.67	21.23
Average revenue per domestic service customer .....	34.47	26.44	66.54	36.97	38.12	27.47
Average revenue per commercial light customer .....	129.31	148.61	138.00	114.64	122.82	127.50
Average revenue per small power customer .....	239.91	574.89	386.37	380.28	390.42	222.71
Average revenue per large power customer .....	8,185.85	28,662.00	8,953.67	12,133.06	14,658.14	29,029.00
Average revenue per kilowatt hour consumed ..... Cents	0.63	0.96	3.62	1.53	1.15	0.41
Average revenue per kilowatt hour - domestic and farm service .. Cents	1.59	2.38	5.37	3.11	3.81	2.04
Average revenue per kilowatt hour - commercial light "	2.04	2.96	3.73	3.57	3.03	2.00

/ - Affected by power purchased from another province.

£ - Gross revenue less cost of power interchanged between stations.

X - Adjusted for power purchased from Quebec plants.

≡ - Included with British Columbia up to and including 1947.

/ - In the 1948 averages as published, the decimal point should have been placed one space to the right.

TABLEAU 4 - RECETTES, 1949 <sup>6</sup>

	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon & North-west Territories	
	\$	\$	\$	\$	\$	\$	
/	101,996,942	15,992,744	11,075,900	13,594,077	27,351,476	682,218	<u>RECETTES PROVENANT DE LA VENTE D'ELECTRICITE</u>
	34,813,383	6,810,980	4,171,599	4,614,214	10,799,002	124,622	Pour éclairage domestique
	14,192,838	3,261,006	2,887,722	3,910,042	7,556,578	112,576	Pour éclairage commercial
	3,923,841	934,925	1,124,004	1,434,361	1,350,014	48,356	Pour force motrice (petite)
	43,997,060	4,442,253	2,349,390	2,925,075	7,071,516	387,681	Pour force motrice (grosse)
	2,549,617	191,099	199,774	345,719	54,751	125	Pour pouvoir municipal
	2,520,403	352,481	343,411	364,666	519,615	8,858	Pour éclairage des rues
	12,871,859	7,993,042	2,295,093	6,975,031	22,379,710	437,471	<u>RECETTES DES USINES COMMERCIALES</u>
	3,027,496	1,397,837	10,170	181,220	104,424	91,552	Non-génératrices
	9,844,363	6,595,205	2,284,923	6,793,811	22,276,286	345,919	Génératrices
	8,999,944	6,477,296	969,803	4,525,950	21,931,164	213,365	Hydrauliques
	844,419	117,909	1,315,120	2,267,861	344,122	132,554	A combustible
	89,125,083	7,999,702	8,780,807	6,619,046	4,971,766	244,747	<u>RECETTES DES USINES MUNICIPALES</u>
	19,983,678	3,245,475	1,311,508	2,154,234	1,167,011	-	Non-génératrices
	69,141,405	4,754,227	7,469,299	4,464,812	3,804,755	244,747	Génératrices
	69,035,950	4,661,742	-	-	3,558,211	244,747	Hydrauliques
	105,455	92,485	7,469,299	4,464,812	246,504	-	A combustible
	23,011,174	4,643,312	1,321,678	2,335,454	1,271,435	91,552	Recettes des usines non-génératrices
	78,985,768	11,349,432	9,754,222	11,258,623	26,080,041	590,666	Recettes des usines génératrices
	78,035,894	11,139,036	969,803	4,525,950	25,489,415	458,112	Recettes des usines hydrauliques
	949,874	210,394	8,784,419	6,732,673	590,626	132,554	Recettes des usines à combustible
X	26.66	34.10	35.59	49.11	37.37	65.49	Moyenne de recettes par H.P. de machinerie primaire
X	25.93	32.97	35.59	45.96	35.06	64.50	Moyenne de recettes par H.P. de machinerie principale et auxiliaire
X	34.05	42.36	43.94	56.68	44.44	74.15	Moyenne de recettes par Kv.A. de capacité de dynamos
X	33.00	40.76	43.94	53.00	41.81	72.96	Moyenne de recettes par Kv.A. de capacité des dynamos, usines principales et auxiliaires
	33.58	51.88	47.41	38.00	40.62	77.65	Moyenne de recettes par abonnés d'éclairage domestique
	108.63	150.12	134.12	150.08	176.53	374.01	Moyenne de recettes par abonnés d'éclairage commercial
	236.01	181.93	315.29	174.41	230.95	732.67	Moyenne de recettes par abonnés pour petite force motrice
	10,663.37	889.70	4,784.91	3,740.51	6,411.17	12,922.70	Moyenne de recettes par abonnés pour grosse force motrice
	0.61	0.61	1.29	1.68	1.28	1.52	Moyenne de recettes par Kw. heure ..... (cents)
	1.13	1.11	3.95	3.54	2.20	6.01	Moyenne de recettes par Kw. heure-service domestique et de ferme ..... (cents)
	1.37	1.92	4.32	3.73	2.88	7.47	Moyenne de recettes par Kw. heure-service commercial (cents)

/ - Affecté par énergie achetée d'une autre province.

6 - Revenu brut moins le coût de l'énergie échangée entre stations.

X - Adjusté pour achats de courant des usines du Québec.

\* - Compris dans Colombie-Britannique jusqu'à 1947 inclus.

/ - Les points décimaux pour les moyennes publiées pour 1948 auraient dû être placés après le troisième chiffre.



TABLE 5 - EXPENSES, 1949 /

	Canada	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$	\$
<u>TOTAL EXPENSES</u> .....	205,130,467	828,577	552,104	10,521,107	6,779,963	53,694,079
Per cent of total for Canada .....	100.00	0.40	0.27	5.13	3.31	26.18
Salaries and wages .....	78,272,815	583,600	230,441	3,341,620	2,585,499	19,084,904
Fuel .....	10,184,642	13,993	247,369	2,597,826	1,416,932	164,472
Taxes (X) .....	28,311,095	189,257	72,651	822,138	216,101	17,523,127
Cost of power .....	88,361,915	41,727	1,643	3,759,523	2,561,431	16,921,576
<u>TOTAL EXPENSES FOR COMMERCIAL STATIONS</u> .....	79,560,846	819,914	450,432	8,005,009	1,853,748	37,518,221
Salaries and wages .....	29,025,785	578,712	193,339	2,465,631	401,225	13,610,001
Fuel .....	5,245,077	10,414	182,799	2,429,224	37,282	130,471
Taxes (X) .....	22,148,298	189,061	72,651	752,084	215,610	13,520,968
Cost of power .....	23,141,686	41,727	1,643	2,358,070	1,199,631	10,256,781
Non-generating stations .....	7,889,681	3,572	-	1,279,166	1,521,507	420,340
Generating stations .....	71,671,165	816,342	450,432	6,725,843	332,241	37,097,881
Hydraulic stations .....	62,434,020	816,342	13,707	985,936	307,517	36,913,279
Fuel stations .....	9,237,145	-	436,725	5,739,907	24,724	184,602
<u>TOTAL EXPENSES FOR MUNICIPAL STATIONS</u> .....	125,569,621	8,663	101,672	3,516,098	4,926,215	16,175,858
Salaries and wages .....	49,247,030	4,888	37,102	875,989	2,184,274	5,474,903
Fuel .....	4,939,565	3,579	64,570	168,602	1,379,650	34,001
Taxes (X) .....	6,162,797	196	-	70,054	491	4,002,159
Cost of power .....	65,220,229	-	-	1,401,453	1,361,800	6,664,795
Non-generating stations .....	60,359,708	-	-	1,334,480	1,477,165	1,054,123
Generating stations .....	65,209,913	8,663	101,672	1,181,618	3,449,050	15,121,735
Hydraulic stations .....	54,965,054	-	-	718,277	103,685	15,106,405
Fuel stations .....	10,244,859	8,663	101,672	463,341	3,345,365	15,330
<u>TOTAL EXPENSES FOR NON-GENERATING STATIONS</u> .....	68,249,389	3,572	-	2,613,646	2,998,672	1,474,463
Salaries and wages .....	16,903,012	2,250	-	626,367	518,036	487,734
Fuel .....	18,432	-	-	-	9,272	-
Taxes (X) .....	1,114,006	-	-	158,929	110,020	9,393
Cost of power .....	50,213,939	1,322	-	1,828,350	2,361,344	977,336
<u>TOTAL EXPENSES FOR GENERATING STATIONS</u> .....	136,881,078	825,005	552,104	7,907,461	3,781,291	52,219,616
Salaries and wages .....	61,369,803	581,350	230,441	2,715,253	2,067,463	18,597,170
Fuel .....	10,166,210	13,993	247,369	2,597,826	1,407,660	164,472
Taxes (X) .....	27,197,089	189,257	72,651	663,209	106,081	17,513,734
Cost of power .....	38,147,976	40,405	1,643	1,931,173	200,087	15,944,240
Hydraulic stations .....	117,399,074	816,342	13,707	1,704,213	411,202	52,019,684
Fuel stations .....	19,482,004	8,663	538,397	6,203,248	3,370,089	199,932

(x) Sales tax not included (see page 9).

/ Includes only the four items listed.

\* Included with British Columbia up to and including 1947.

TABLEAU 5 - DEPENSES, 1949 /

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	
\$	\$	\$	\$	\$	\$	
95,084,093	8,061,288	6,264,662	8,768,823	14,287,721	288,050	<u>TOTAL DES DEPENSES</u>
46.35	3.93	3.05	4.27	6.97	0.14	Pourcentage du total pour le Canada
33,150,800	5,234,941	2,512,866	3,475,116	7,923,854	149,174	Salaires et gages
673,793	77,618	2,220,728	1,577,880	1,162,692	31,339	Combustible
3,686,821	348,411	257,622	1,362,020	3,817,698	15,249	Taxes (x)
57,572,679	2,400,318	1,273,446	2,353,807	1,383,477	92,288	Achat d'énergie électrique
11,029,949	2,918,749	1,074,946	4,786,699	10,863,869	239,310	<u>TOTAL DES DEPENSES POUR LES USINES COMMERCIALES</u>
2,018,083	1,208,265	458,585	2,202,688	5,788,454	100,804	Salaires et gages
517,778	27,047	439,796	649,982	788,945	31,339	Combustible
2,234,036	183,547	168,646	1,053,848	3,742,968	14,879	Taxes (x)
6,260,052	1,499,892	7,919	880,181	543,592	92,288	Achat d'énergie électrique
2,767,555	1,554,679	9,950	99,071	132,504	101,337	Usines non-génératrices
8,262,394	1,564,070	1,064,996	4,687,628	10,731,365	137,973	Usines génératrices
7,737,903	1,299,962	353,345	3,408,247	10,534,716	63,066	Usines hydrauliques
524,491	64,108	711,651	1,279,581	196,649	74,907	Usines à combustible
84,054,144	5,142,539	5,189,716	3,982,124	3,423,852	48,740	<u>TOTAL DES DEPENSES POUR LES USINES MUNICIPALES</u>
31,132,717	4,026,678	2,054,281	1,272,428	2,135,400	48,370	Salaires et gages
156,015	50,571	1,780,932	927,898	373,747	-	Combustible
1,452,785	164,864	88,976	308,172	74,730	370	Taxes (x)
51,312,627	900,426	1,265,527	1,473,626	839,975	-	Achat d'énergie électrique
49,078,936	5,076,595	1,265,022	2,121,836	951,753	-	Usines non-génératrices
34,975,208	2,066,146	3,924,694	1,860,288	2,472,099	48,740	Usines génératrices
54,931,356	2,024,650	-	-	2,031,941	48,740	Usines hydrauliques
43,852	41,496	3,924,694	1,860,288	440,158	-	Usines à combustible
51,846,491	4,631,072	1,274,972	2,220,907	1,084,257	101,337	<u>TOTAL DES DEPENSES DES USINES NON-GENERATRICES</u>
12,104,749	2,187,192	168,101	530,611	255,880	22,092	Salaires et gages
9,116	-	-	-	-	44	Combustible
538,272	43,562	88,881	148,378	6,571	10,000	Taxes (x)
39,194,354	2,400,318	1,017,990	1,541,918	821,806	69,201	Achat d'énergie électrique
43,237,602	3,430,216	4,989,690	6,547,916	13,203,464	186,713	<u>TOTAL DES DEPENSES DES USINES GENERATRICES</u>
21,046,051	3,047,749	2,344,765	2,944,505	7,667,974	127,082	Salaires et gages
664,677	77,618	2,220,728	1,577,880	1,162,692	31,295	Combustible
3,148,549	304,849	168,741	1,215,642	3,811,127	5,249	Taxes (x)
18,378,325	-	255,456	811,889	561,671	23,087	Achat d'énergie électrique
42,669,259	3,324,612	353,345	3,408,247	12,566,657	111,806	Usines hydrauliques
568,343	105,604	4,636,345	3,139,669	636,807	74,907	Usines à combustible

(x) Taxes des ventes non comprises (Voir p.9).

/ Ne comprend que les quatres items énumérés.

\* Compris dans Colombie-Britannique jusqu'à 1947 inclus.

TABLE 6 - EMPLOYEES, 1949

	Canada	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>TOTAL NUMBER OF PERSONS EMPLOYED</u> .....	31,746	343	143	1,629	1,270	7,791
Per cent of total for Canada .....	100.00	1.08	0.45	5.13	4.00	24.54
Officers, clerks, other salaried employees, etc.	9,944	50	28	612	337	2,330
Employees on wages .....	21,802	293	115	1,017	933	5,461
<u>TOTAL EMPLOYEES IN COMMERCIAL STATIONS</u> .....	11,971	339	117	1,075	198	5,762
Officers, clerks, other salaried employees, etc..	3,502	49	23	345	43	1,439
Employees on wages .....	8,469	290	94	730	155	4,323
Non-generating .....	636	2	-	197	109	143
Generating .....	11,335	337	117	878	89	5,619
Hydraulic .....	10,200	337	5	381	85	5,571
Fuel .....	1,135	-	112	497	4	48
<u>TOTAL EMPLOYEES IN MUNICIPAL STATIONS</u> .....	19,775	4	26	554	1,072	2,029
Officers, clerks, other salaried employees, etc..	6,442	1	5	267	294	891
Employees on wages .....	13,333	3	21	287	778	1,138
Non-generating .....	6,884	-	-	132	156	151
Generating .....	12,891	4	26	422	916	1,878
Hydraulic .....	10,869	-	-	389	55	1,873
Fuel .....	2,022	4	26	33	881	5
<u>TOTAL EMPLOYEES IN NON-GENERATING STATIONS</u> .....	7,520	2	-	329	265	294
Officers, clerks, other salaried employees, etc..	2,730	-	-	105	120	91
Employees on wages .....	4,790	2	-	224	145	203
<u>TOTAL EMPLOYEES IN GENERATING STATIONS</u> .....	24,226	341	143	1,300	1,005	7,497
Officers, clerks, other salaried employees, etc..	7,214	50	28	507	217	2,239
Employees on wages .....	17,012	291	115	793	788	5,258
Hydraulic .....	21,069	337	5	770	120	7,444
Fuel .....	3,157	4	138	530	885	53

\* Included with British Columbia up to and including 1947.



TABLÉAU 6 - EMPLOYÉS, 1949

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	
13,055	2,510	1,001	1,357	2,602	45	<u>TOTAL DU PERSONNEL OCCUPE</u>
41.12	7.91	3.15	4.28	8.20	0.14	Pourcentage du total pour le Canada
4,161	728	288	415	978	17	Administrateurs, directeurs, commis & tous employés des bureaux
8,894	1,782	713	942	1,624	28	Ouvriers et journaliers
791	540	199	857	2,063	30	<u>PERSONNEL DES USINES COMMERCIALES</u>
203	258	76	253	801	12	Administrateurs, directeurs, commis et tous employés des bureaux
588	282	123	604	1,262	18	Ouvriers et journaliers
131	11	4	18	14	7	Non-génératrices
660	529	195	839	2,049	23	Génératrices
641	515	102	537	2,018	8	Hydrauliques
19	14	93	302	31	15	Combustible
12,264	1,970	802	500	539	15	<u>PERSONNEL DES USINES MUNICIPALES</u>
3,958	470	212	162	177	5	Administrateurs, directeurs, commis et tous employés des bureaux
8,306	1,500	590	338	362	10	Ouvriers et journaliers
4,876	1,192	73	203	101	-	Non-génératrices
7,388	778	729	297	438	15	Génératrices
7,379	761	-	-	417	15	Hydrauliques
9	17	729	297	21	-	Combustible
5,007	1,203	77	221	115	7	<u>PERSONNEL DES USINES NON-GENERATRICES</u>
2,003	228	39	102	39	3	Administrateurs, directeurs, commis et tous employés des bureaux
3,004	975	38	119	76	4	Ouvriers et journaliers
8,048	1,307	924	1,136	2,487	38	<u>PERSONNEL DES USINES GENERATRICES</u>
2,158	500	249	313	939	14	Administrateurs, directeurs, commis et tous employés des bureaux
5,890	807	675	823	1,548	24	Ouvriers et journaliers
8,020	1,276	102	537	2,435	23	Hydrauliques
28	31	822	599	52	15	Combustible

\* Compris dans Colombie-Britannique jusqu'à 1947 inclus.

TABLE 7 - NUMBER OF CUSTOMERS, 1949

	Canada	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	
<b>NUMBER OF CUSTOMERS</b> .....	<b>3,076,369</b>	<b>31,779</b>	<b>10,877</b>	<b>131,463</b>	<b>102,326</b>	<b>858,381</b>	
Per cent to total for Canada .....	100.00	1.03	0.35	4.27	3.33	27.90	
Domestic service .....	2,619,831	28,725	8,966	107,516	87,827	741,941	
Commercial light .....	579,528	2,615	1,735	20,117	12,667	99,324	
Power (small) .....	58,600	409	143	3,464	1,600	13,519	
Power (large) .....	14,208	17	6	253	140	2,267	
Power (municipal) .....	964	4	13	14	32	201	
Street lighting .....	3,240	9	14	99	60	1,129	
<b>COMMERCIAL STATIONS</b> .....	<b>1,042,951</b>	<b>31,590</b>	<b>9,010</b>	<b>84,237</b>	<b>24,934</b>	<b>447,795</b>	
Domestic service .....	886,030	28,551	7,320	71,458	21,253	389,789	
Commercial light .....	128,859	2,605	1,557	10,147	3,141	48,302	
Power (small) .....	20,139	406	104	2,468	435	7,057	
Power (large) .....	5,896	17	4	109	59	1,422	
Power (municipal) .....	356	3	12	5	27	155	
Street lighting .....	1,671	8	13	50	19	1,070	
Non-generating .....	98,953	182	-	29,599	20,611	12,977	
Generating .....	943,998	31,408	9,010	54,638	4,323	434,818	
Hydraulic .....	853,388	31,408	565	17,977	4,321	431,359	
Fuel .....	90,610	-	8,445	36,661	2	3,459	
<b>MUNICIPAL STATIONS</b> .....	<b>2,033,418</b>	<b>189</b>	<b>1,867</b>	<b>47,226</b>	<b>77,392</b>	<b>410,586</b>	-
Domestic service .....	1,733,801	174	1,646	36,058	66,574	352,152	
Commercial light .....	250,667	10	178	9,970	9,826	51,022	
Power (small) .....	38,461	3	39	996	1,165	6,462	
Power (large) .....	8,312	-	2	144	81	845	
Power (municipal) .....	608	1	1	9	5	46	
Street lighting .....	1,569	1	1	49	41	59	
Non-generating .....	1,042,777	-	-	20,355	29,335	32,247	
Generating .....	990,641	189	1,867	26,871	48,057	378,339	
Hydraulic .....	800,000	-	-	21,962	2,703	377,827	
Fuel .....	190,641	189	1,867	4,909	45,354	512	
<b>NON-GENERATING STATIONS</b> .....	<b>1,141,730</b>	<b>182</b>	<b>-</b>	<b>49,954</b>	<b>49,946</b>	<b>45,224</b>	
Domestic service .....	975,084	182	-	43,040	41,647	40,289	
Commercial light .....	138,328	-	-	5,587	7,176	4,122	
Power (small) .....	22,984	-	-	1,169	1,008	580	
Power (large) .....	3,920	-	-	109	65	139	
Power (municipal) .....	582	-	-	10	30	15	
Street lighting .....	832	-	-	39	20	79	
<b>GENERATING STATIONS</b> .....	<b>1,934,639</b>	<b>31,597</b>	<b>10,877</b>	<b>81,509</b>	<b>52,380</b>	<b>813,157</b>	
<b>Hydraulic stations</b> .....	<b>1,653,388</b>	<b>31,408</b>	<b>565</b>	<b>39,939</b>	<b>7,024</b>	<b>809,186</b>	
Domestic service .....	1,420,721	28,369	447	30,223	5,839	698,452	
Commercial light .....	194,776	2,605	114	8,870	1,010	94,476	
Power (small) .....	26,680	406	3	711	142	12,910	
Power (large) .....	9,301	17	-	88	23	2,127	
Power (municipal) .....	240	3	-	2	2	185	
Street lighting .....	1,670	8	1	45	8	1,036	
<b>Fuel stations</b> .....	<b>281,251</b>	<b>189</b>	<b>10,312</b>	<b>41,570</b>	<b>45,356</b>	<b>3,971</b>	
Domestic service .....	224,026	174	8,519	34,253	40,341	3,200	
Commercial light .....	46,422	10	1,621	5,660	4,481	726	
Power (small) .....	8,936	3	140	1,584	450	29	
Power (large) .....	987	-	6	56	52	1	
Power (municipal) .....	142	1	13	2	-	1	
Street lighting .....	738	1	13	15	32	14	
Average number of domestic service customers per 100 of population .....	19.34	8.25	9.54	16.67	17.02	19.09	

\* Included with British Columbia up to and including 1947.

TABLEAU 7 - NOMBRE D'USAGERS, 1949

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	
1,189,275	163,464	114,095	156,945	315,755	2,009	<u>NOMBRE D'USAGERS</u>
38.66	5.31	3.71	5.10	10.27	0.07	Pourcentage du total pour le Canada
1,036,705	131,284	87,987	121,440	265,835	1,605	Service domestique
130,653	21,722	21,531	26,056	42,805	301	Eclairage commercial
16,625	5,139	3,565	8,224	5,846	66	Force motrice (petite)
4,126	4,993	491	782	1,103	30	Force motrice (grosse)
504	8	21	142	22	3	Energie (municipale)
662	318	500	301	144	4	Eclairage des rues
77,090	48,570	11,903	62,236	243,580	2,006	<u>NOMBRE D'USAGERS DES USINES COMMERCIALES</u>
66,365	38,432	9,542	45,857	205,858	1,605	Service domestique
9,250	7,007	1,948	11,992	32,609	301	Eclairage commercial
1,029	515	320	3,626	4,113	66	Force motrice (petite)
369	2,598	24	342	925	27	Force motrice (grosse)
11	1	3	131	5	3	Energie (municipale)
66	17	66	288	70	4	Eclairage des rues
16,720	10,983	308	3,339	3,364	870	Non-génératrices
60,370	37,587	11,595	58,897	240,216	1,136	Génératrices
59,533	36,172	2	33,346	238,622	83	Hydrauliques
837	1,415	11,593	25,551	1,594	1,053	Combustible
1,112,185	114,894	102,192	94,709	72,175	3	<u>NOMBRE D'USAGERS DES USINES MUNICIPALES</u>
970,340	92,852	78,445	75,583	59,977	-	Service domestique
121,403	14,715	19,583	14,064	10,196	-	Eclairage commercial
15,596	4,624	3,245	4,598	1,733	-	Force motrice (petite)
3,757	2,395	467	440	178	3	Force motrice (grosse)
493	7	18	11	17	-	Energie (municipale)
596	301	434	13	74	-	Eclairage des rues
819,787	52,104	21,823	42,005	25,121	-	Non-génératrices
292,398	62,790	80,369	52,704	47,054	3	Génératrices
291,098	61,756	-	-	44,651	3	Hydrauliques
1,300	1,034	80,369	52,704	2,403	-	Combustible
836,507	63,067	22,131	45,344	28,485	870	<u>NOMBRE D'USAGERS DES USINES NON-GENERATRICES</u>
718,894	51,329	17,779	37,119	24,193	612	Service domestique
99,520	9,156	3,302	5,730	3,536	199	Eclairage commercial
14,249	2,000	999	2,324	622	33	Force motrice (petite)
3,011	299	33	144	98	22	Force motrice (grosse)
492	4	6	9	14	2	Energie (municipale)
341	299	12	18	22	2	Eclairage des rues
352,768	100,377	91,964	111,601	287,270	1,139	<u>NOMBRE D'USAGERS DES USINES GENERATRICES</u>
350,631	97,928	2	33,346	283,273	86	Usines hydrauliques
315,956	78,222	-	24,742	238,395	76	Service domestique
30,874	12,019	-	6,090	38,717	1	Eclairage commercial
2,361	2,995	-	2,103	5,048	1	Force motrice (petite)
1,113	4,679	2	247	997	8	Force motrice (grosse)
11	2	-	29	6	-	Energie (municipale)
316	11	-	135	110	-	Eclairage des rues
2,137	2,449	91,962	78,255	3,997	1,053	<u>Usines à combustible</u>
1,855	1,733	70,208	59,579	3,247	917	Service domestique
259	547	18,229	14,236	552	101	Eclairage commercial
15	144	2,566	3,797	176	32	Force motrice (petite)
2	15	456	391	8	-	Force motrice (grosse)
1	2	15	104	2	1	Energie (municipale)
5	8	488	148	12	2	Eclairage des rues
23.50	16.87	10.22	13.94	23.86	6.69	Moyenne de consommateurs d'éclairage électrique par 100 habitants

\* Compris dans Colombie-Britannique jusqu'à 1947 inclus.



TABLE 8 - POLE LINE MILEAGE, 1949

	Canada	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<u>POLE LINE MILEAGE</u> .....	135,329	1,539	511	7,536	5,911	26,809
Per cent of total for Canada .....	100.00	1.14	0.38	5.57	4.37	19.81
Miles of steel towers .....	6,804	107	-	21	354	1,695
Miles of steel poles .....	264	11	-	2	-	173
Miles of wooden poles .....	125,277	1,404	508	7,500	5,557	24,213
Miles of concrete poles .....	616	10	-	-	-	-
Miles of underground and submarine cable .....	2,368	7	3	13	-	828
<u>TOTAL POLE LINE MILEAGE - COMMERCIAL STATIONS</u> .....	49,086	1,533	430	3,644	720	23,317
Non-generating .....	3,881	9	-	810	277	1,798
Generating .....	45,205	1,524	430	2,834	443	21,519
Hydraulic .....	40,873	1,524	28	1,654	423	21,196
Fuel .....	4,332	-	402	1,180	20	323
<u>TOTAL POLE LINE MILEAGE - MUNICIPAL STATIONS</u> .....	86,243	6	81	3,892	5,191	3,492
Non-generating .....	25,052	-	-	675	249	353
Generating .....	61,191	6	81	3,217	4,942	3,139
Hydraulic .....	50,603	-	-	3,111	41	3,129
Fuel .....	10,588	6	81	106	4,901	10
<u>TOTAL POLE LINE MILEAGE - NON-GENERATING STATIONS</u> .....	28,933	9	-	1,485	526	2,151
<u>TOTAL POLE LINE MILEAGE - GENERATING STATIONS</u> .....	106,396	1,530	511	6,051	5,385	24,668
Hydraulic .....	91,476	1,524	28	4,765	464	24,325
Fuel .....	14,920	6	483	1,286	4,921	333

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1949

<u>TOTAL PRIMARY POWER</u> .....	H.P.	245,478	982	400	2,025	8,725	42,584
Per cent of total for Canada .....		100.00	0.40	0.16	0.82	3.55	17.35
Steam reciprocating engines .....	No.	13	-	1	3	2	-
Total capacity .....	H.P.	4,818	-	75	1,190	800	-
Steam turbines .....	No.	46	-	-	1	3	8
Total capacity .....	H.P.	209,560	-	-	670	1,925	56,224
Gas and oil engines .....	No.	69	7	3	1	7	10
Total capacity .....	H.P.	31,100	982	325	165	6,000	6,360
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	213,410	887	262	1,638	7,051	58,170
<u>COMMERCIAL STATIONS</u>							
<u>TOTAL PRIMARY POWER</u> .....	H.P.	94,925	982	400	2,025	4,765	8,180
Steam reciprocating engines .....	No.	13	-	1	3	2	-
Total capacity .....	H.P.	4,818	-	75	1,190	800	-
Steam turbines .....	No.	25	-	-	1	3	3
Total capacity .....	H.P.	75,875	-	-	670	1,925	3,500
Gas and oil engines .....	No.	40	7	3	1	3	6
Total capacity .....	H.P.	14,232	982	325	165	2,040	4,680
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	77,879	887	262	1,638	3,585	6,751
<u>MUNICIPAL STATIONS</u>							
<u>TOTAL PRIMARY POWER</u> .....	H.P.	150,553	-	-	-	3,960	34,404
Steam reciprocating engines .....	No.	-	-	-	-	-	-
Total capacity .....	H.P.	-	-	-	-	-	-
Steam turbines .....	No.	21	-	-	-	-	5
Total capacity .....	H.P.	133,685	-	-	-	-	32,724
Gas and oil engines .....	No.	29	-	-	-	4	4
Total capacity .....	H.P.	16,868	-	-	-	3,960	1,680
<u>TOTAL SECONDARY POWER</u> .....	Kv.A.	135,531	-	-	-	3,446	31,419

\* Included with British Columbia up to and including 1947.

TABLEAU 8 - LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX, 1949

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories	
51,186	16,785	5,371	10,103	9,422	156	<u>LONGUEUR (EN MILLES) DES LIGNES SUR POTEAUX</u>
37,82	12,40	3,97	7,47	6,96	0.11	Pourcentage du total pour tout le Canada
3,592	817	12	35	271	-	Milles de pylones d'acier
75	3	-	-	-	-	Milles de poteaux d'acier
45,762	15,904	5,331	9,962	8,981	155	Milles de poteaux de bois
605	1	-	-	-	-	Milles de poteaux de ciment
1,152	60	28	106	170	1	Milles de câbles souterrains et sous-marins
2,157	1,454	506	8,976	6,483	56	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES COMMERCIALES</u>
385	264	7	80	229	22	Non-génératrices
1,772	1,190	299	8,896	6,254	44	Génératrices
1,754	1,120	12	6,939	6,196	27	Hydrauliques
18	70	287	1,957	58	17	A combustible
49,029	16,331	5,065	1,127	2,939	90	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES MUNICIPALES</u>
8,258	14,397	221	568	331	-	Non-génératrices
40,771	934	4,844	559	2,608	90	Génératrices
40,746	926	-	-	2,560	90	Hydrauliques
25	8	4,844	559	48	-	A combustible
8,643	14,661	228	648	560	22	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES NON - GÉNÉRATRICES</u>
42,543	2,124	5,143	9,455	8,862	134	<u>TOTAL (EN MILLES) POUR LE SERVICE DES USINES GÉNÉRATRICES</u>
42,500	2,046	12	6,939	8,756	117	Hydrauliques
43	78	5,131	2,516	106	17	A combustible

TABLEAU 9 - OUTILLAGE AUXILIAIRE, 1949

107,503	15,980	-	18,963	48,156	160	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....E.P.
43,79	6,51	-	7,73	19,62	0.07	Pourcentage du total pour tout le Canada
-	-	-	7	-	-	Machines à vapeur, à mouvement alternatif .....Nomb.
-	-	-	2,753	-	-	Capacité totale .....E.P.
13	5	-	4	11	1	Turbines à vapeur .....Nomb.
97,001	15,980	-	15,000	42,600	160	Capacité totale .....E.P.
14	-	-	7	20	-	Moteurs à gaz et à pétrole .....Nomb.
10,502	-	-	1,210	5,556	-	Capacité totale .....E.P.
94,912	14,906	-	16,662	38,792	150	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....E.P.
16,160	-	-	18,963	43,290	160	<u>USINES COMMERCIALES</u>
-	-	-	7	-	-	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....E.P.
-	-	-	2,753	-	-	Machines à vapeur, à mouvement alternatif .....Nomb.
3	-	-	4	10	1	Capacité totale .....E.P.
12,520	-	-	15,000	42,100	160	Turbines à vapeur .....Nomb.
5	-	-	7	8	-	Capacité totale .....E.P.
3,640	-	-	1,210	1,190	-	Moteurs à gaz et à pétrole .....Nomb.
12,844	-	-	16,662	35,100	150	Capacité totale .....E.P.
91,343	15,980	-	-	4,866	-	<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....E.P.
-	-	-	-	-	-	<u>USINES MUNICIPALES</u>
-	-	-	-	-	-	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....E.P.
10	5	-	-	1	-	Machines à vapeur, à mouvement alternatif .....Nomb.
84,481	15,980	-	-	500	-	Capacité totale .....E.P.
9	-	-	-	12	-	Turbines à vapeur .....Nomb.
6,862	-	-	-	4,366	-	Capacité totale .....E.P.
82,068	14,906	-	-	3,692	-	Moteurs à gaz et à pétrole .....Nomb.
						Capacité totale .....E.P.
						<u>TOTAL, FORCE MOTRICE SECONDAIRE</u> .....E.P.

■ Compris dans Colombie-Britannique jusqu'à 1947 inclus.



TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1949

	Canada	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	
<b>TOTAL PRIMARY POWER</b> ..... H.P.	10,883,276	55,961	10,427	246,227	195,366	5,763,931	
Per cent of total for Canada .....	100.00	0.51	0.10	2.26	1.79	52.96	
Water wheels and turbines ..... No.	843	28	6	60	14	281	
Total capacity ..... H.P.	9,973,405	54,716	387	126,168	104,260	5,718,507	
Steam reciprocating engines ..... No.	25	-	1	5	4	-	
Total capacity ..... H.P.	53,036	-	75	2,990	2,600	-	
Steam turbines ..... No.	134	-	4	21	12	8	
Total capacity ..... H.P.	739,708	-	6,680	114,051	73,795	36,224	
Gas and oil engines ..... No.	515	11	14	18	26	27	
Total capacity ..... H.P.	117,127	1,246	3,285	3,028	14,711	9,200	
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	9,103,702	47,195	7,902	210,143	168,111	4,913,765	
Per cent of total for Canada .....	100.00	0.52	0.09	2.31	1.85	53.97	
Dynamos, A.C. .... No.	1,439	40	19	103	55	316	
Total capacity ..... Kv.A.	9,099,645	47,195	7,513	209,843	168,111	4,913,743	
Dynamos, D.C. .... No.	67	-	4	1	-	1	
Total capacity ..... Kw.	4,057	-	389	300	-	12	
<b>COMMERCIAL STATIONS</b>							
<b>TOTAL PRIMARY POWER</b> ..... H.P.	6,524,228	55,697	7,837	154,372	97,165	4,595,912	
Water wheels and turbines ..... No.	455	28	6	20	8	200	
Total capacity ..... H.P.	6,188,921	54,716	387	42,078	91,400	4,585,072	
Steam reciprocating engines ..... No.	19	-	1	5	2	-	
Total capacity ..... H.P.	7,426	-	75	2,990	800	-	
Steam turbines ..... No.	61	-	4	16	4	3	
Total capacity ..... H.P.	292,378	-	6,680	106,845	2,925	3,500	
Gas and oil engines ..... No.	229	7	8	8	3	21	
Total capacity ..... H.P.	35,503	962	695	2,459	2,040	7,340	
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	5,481,967	47,046	5,721	131,648	84,360	3,871,932	
Dynamos, A.C. .... No.	712	36	13	48	16	224	
Total capacity ..... Kv.A.	5,479,494	47,046	5,332	131,348	84,360	3,871,920	
Dynamos, D.C. .... No.	45	-	4	1	-	1	
Total capacity ..... Kw.	2,473	-	389	300	-	12	
<b>MUNICIPAL STATIONS</b>							
<b>TOTAL PRIMARY POWER</b> ..... H.P.	4,359,048	264	2,590	91,855	98,201	1,169,019	
Water wheels and turbines ..... No.	388	-	-	40	6	81	
Total capacity ..... H.P.	3,784,484	-	-	84,080	12,860	1,133,435	
Steam reciprocating engines ..... No.	6	-	-	-	2	-	
Total capacity ..... H.P.	45,610	-	-	-	1,800	-	
Steam turbines ..... No.	73	-	-	5	8	5	
Total capacity ..... H.P.	447,530	-	-	7,206	70,870	32,724	
Gas and oil engines ..... No.	286	4	6	10	23	6	
Total capacity ..... H.P.	81,624	264	2,590	569	12,671	1,860	
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.	3,621,735	149	2,181	78,495	83,751	1,041,823	
Dynamos, A.C. .... No.	727	4	6	55	39	92	
Total capacity ..... Kv.A.	3,620,151	149	2,181	78,495	83,751	1,041,823	
Dynamos, D.C. .... No.	22	-	-	-	-	-	
Total capacity ..... Kw.	1,584	-	-	-	-	-	

\* Included with British Columbia up to and including 1947.

(1) Generating equipment for the Yukon and Northwest Territories is located mainly in the mining and smelting industry.



TABLEAU 10 - OUTILLAGE GLOBAL, Y COMPRIS OUTILLAGE AUXILIAIRE, 1949

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon & Northwest Territories (1) *	
2,728,653	485,022	311,186	295,789	780,137	10,577	<u>TOTAL FORCE MOTRICE PRIMAIRE</u> .....H.P.
25.07	4.46	2.86	2.72	7.17	0.10	Pourcentage du total pour le Canada .....
322	42	6	11	70	3	Turbines et roues hydrauliques .....Nomb.
2,574,500	466,800	106,500	105,300	706,548	9,730	Capacité totale .....H.P.
-	-	1	14	-	-	Machines à vapeur, à mouvement alternatif .....Nomb.
-	-	750	45,621	-	-	Capacité totale .....H.P.
17	5	26	23	17	1	Turbines à vapeur .....Nomb.
142,761	15,980	169,149	130,140	50,778	160	Capacité totale .....H.P.
21	12	161	121	98	6	Moteurs à gaz et à pétrole .....Nomb.
11,402	2,242	34,787	13,728	22,811	687	Capacité totale .....H.P.
2,192,031	392,407	252,079	256,515	654,213	9,351	<u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A.
24.08	4.31	2.77	2.82	7.18	0.10	Pourcentage du total pour le Canada .....
361	57	154	148	176	10	Dynamos, C.A. ....Nomb.
2,192,031	392,407	251,335	254,003	654,113	9,351	Capacité totale .....Kv.A.
-	-	37	19	5	-	Dynamos, C.D. ....Nomb.
-	-	744	2,512	100	-	Capacité totale .....Kw.
423,436	266,772	139,558	157,578	623,054	2,847	<u>USINES COMMERCIALES</u>
107.	18	6	11	50	1	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
361,211	265,800	106,500	105,300	574,458	2,000	Turbines et roues hydrauliques .....Nomb.
-	-	-	11	-	-	Capacité totale .....H.P.
-	-	-	3,561	-	-	Machines à vapeur, à mouvement alternatif .....Nomb.
-	-	-	-	-	-	Capacité totale .....H.P.
7	-	4	10	12	1	Turbines à vapeur .....Nomb.
58,270	-	31,998	36,300	45,700	160	Capacité totale .....H.P.
8	9	30	109	20	6	Moteurs à gaz et à pétrole .....Nomb.
3,955	972	1,060	12,417	2,896	687	Capacité totale .....H.P.
365,019	206,906	114,501	132,514	520,119	2,201	<u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A.
122	25	17	127	76	8	Dynamos, C.A. ....Nomb.
365,019	206,906	114,144	131,199	520,019	2,201	Capacité totale .....Kv.A.
-	-	20	14	5	-	Dynamos, C.D. ....Nomb.
-	-	357	1,315	100	-	Capacité totale .....Kw.
2,305,217	218,250	171,628	138,211	157,083	7,730	<u>USINES MUNICIPALES</u>
215	24	-	-	20	2	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> .....H.P.
2,213,289	201,000	-	-	132,090	7,730	Turbines et roues hydrauliques .....Nomb.
-	-	1	3	-	-	Capacité totale .....H.P.
-	-	750	43,060	-	-	Machines à vapeur, à mouvement alternatif .....Nomb.
-	-	-	-	-	-	Capacité totale .....H.P.
10	5	22	13	5	-	Turbines à vapeur .....Nomb.
84,481	16,980	137,151	93,840	5,078	-	Capacité totale .....H.P.
13	3	131	12	78	-	Moteurs à gaz et à pétrole .....Nomb.
7,447	1,270	33,727	1,311	19,915	-	Capacité totale .....H.P.
1,827,012	185,501	137,578	124,001	134,094	7,150	<u>CAPACITE TOTALE DES DYNAMOS</u> .....Kv.A.
239	32	187	21	100	2	Dynamos, C.A. ....Nomb.
1,827,012	185,501	137,191	122,804	134,094	7,150	Capacité totale .....Kv.A.
-	-	17	5	-	-	Dynamos, C.D. ....Nomb.
-	-	387	1,197	-	-	Capacité totale .....Kw.

\* Compris dans Colombie-Britannique jusqu'à 1947 inclus.

(1) L'outillage générateur du Yukon et des territoires du Nord-Ouest paraît

en majeure partie dans l'industrie de l'exploitation minière et de l'affinage.

TABLE 11 - MAIN PLANT EQUIPMENT, 1949

	Canada	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>TOTAL PRIMARY POWER</b> ..... H.P.						
Per cent of total for Canada .....	10,637,798	54,979	10,027	244,202	186,641	5,721,347
Water Wheels and turbines ..... No.	100.00	0.52	0.09	2.30	1.75	53.78
Total Capacity ..... H.P.	843	28	6	60	14	281
Steam reciprocating engines ..... No.	9,973,405	54,715	387	126,158	104,260	5,718,507
Total Capacity ..... H.P.	12	-	-	2	2	-
Steam turbines ..... No.	48,218	-	-	1,800	1,800	-
Total Capacity ..... H.P.	88	-	4	20	9	-
Gas and oil engines ..... No.	530,148	-	6,680	113,381	71,870	-
Total Capacity ..... H.P.	446	4	11	17	19	17
Total Capacity ..... H.P.	86,027	264	2,960	2,863	8,711	2,840
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.						
Per cent of total for Canada .....	8,890,292	46,308	7,640	208,505	161,080	4,875,585
Dynamos, A.C. ....	100.00	0.52	0.09	2.34	1.81	54.84
Dynamos, D.C. ....	1,321	33	18	99	44	299
Total Capacity ..... Kv.A.	8,887,849	46,308	7,465	208,505	161,080	4,875,575
Dynamos, D.C. ....	62	-	2	-	-	1
Total Capacity ..... Kw.	2,443	-	175	-	-	12
<b>COMMERCIAL STATIONS</b>						
<b>TOTAL PRIMARY POWER</b> ..... H.P.						
Per cent of total for Canada .....	6,429,303	54,715	7,437	152,347	92,400	4,587,732
Water Wheels and turbines ..... No.	100.00	0.85	0.11	2.37	1.44	71.36
Total Capacity ..... H.P.	455	28	6	20	8	200
Steam reciprocating engines ..... No.	6,188,921	54,715	387	42,078	91,400	4,585,072
Total Capacity ..... H.P.	6	-	-	2	-	-
Steam turbines ..... No.	2,608	-	-	1,800	-	-
Total Capacity ..... H.P.	36	-	4	15	1	-
Gas and oil engines ..... No.	216,503	-	6,680	106,175	1,000	-
Total Capacity ..... H.P.	189	-	5	7	-	15
Total Capacity ..... H.P.	21,271	-	370	2,294	-	2,660
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.						
Per cent of total for Canada .....	5,404,088	46,159	5,459	130,010	80,775	3,865,181
Dynamos, A.C. ....	100.00	0.85	0.10	2.41	1.49	71.52
Dynamos, D.C. ....	644	29	12	44	9	216
Total Capacity ..... Kv.A.	5,403,229	46,159	5,284	130,010	80,775	3,865,169
Dynamos, D.C. ....	40	-	2	-	-	1
Total Capacity ..... Kw.	859	-	175	-	-	12
<b>MUNICIPAL STATIONS</b>						
<b>TOTAL PRIMARY POWER</b> ..... H.P.						
Per cent of total for Canada .....	4,208,495	264	2,590	91,855	94,241	1,133,615
Water Wheels and turbines ..... No.	100.00	0.01	0.06	2.18	2.24	26.94
Total Capacity ..... H.P.	388	-	-	40	6	81
Steam reciprocating engines ..... No.	3,784,484	-	-	84,080	12,860	1,133,435
Total Capacity ..... H.P.	6	-	-	-	2	-
Steam turbines ..... No.	45,610	-	-	-	1,800	-
Total Capacity ..... H.P.	52	-	-	5	8	-
Gas and oil engines ..... No.	313,645	-	-	7,206	70,870	-
Total Capacity ..... H.P.	257	4	6	10	19	2
Total Capacity ..... H.P.	64,756	264	2,590	569	8,711	180
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.						
Per cent of total for Canada .....	3,486,204	149	2,181	78,495	80,305	1,010,404
Dynamos, A.C. ....	100.00	0.01	0.06	2.25	2.30	28.98
Dynamos, D.C. ....	677	4	6	55	35	85
Total Capacity ..... Kv.A.	3,484,620	149	2,181	78,495	80,305	1,010,404
Dynamos, D.C. ....	22	-	-	-	-	-
Total Capacity ..... Kw.	1,584	-	-	-	-	-
<b>HYDRAULIC STATIONS</b>						
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.						
Per cent of total for Canada .....	8,327,103	46,159	338	106,170	90,288	4,875,401
Dynamos, A.C. ....	100.00	0.55	0.01	1.28	1.08	58.53
Dynamos, D.C. ....	839	29	3	60	14	282
Total Capacity ..... Kv.A.	8,326,846	46,159	163	106,170	90,288	4,873,589
Dynamos, D.C. ....	5	-	2	-	-	1
Total Capacity ..... Kw.	257	-	175	-	-	12
<b>FUEL STATIONS</b>						
<b>TOTAL DYNAMO CAPACITY</b> ..... Kv.A.						
Per cent of total for Canada .....	563,189	149	7,302	102,335	70,792	2,184
Dynamos, A.C. ....	100.00	0.02	1.29	18.17	12.57	0.59
Dynamos, D.C. ....	482	4	15	39	30	17
Total Capacity ..... Kv.A.	561,003	149	7,302	102,335	70,792	2,184
Dynamos, D.C. ....	57	-	-	-	-	-
Total Capacity ..... Kw.	2,186	-	-	-	-	-

\* Included with British Columbia up to and including 1947.

(1) Generating equipment for Yukon and Northwest Territories is located mainly in the mining and smelting industry.



TABLEAU 11 - OUTILLAGE DES USINES PRINCIPALES, 1949

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon & (1) Northwest Territories	
2,621,150 24.64 522 2,574,500	469,042 4.41 42 466,800	511,186 2.93 6 106,500	276,826 2.60 11 105,300	731,981 6.88 70 706,548	10,417 0.10 3 9,730	<u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Roues hydrauliques et turbines ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
- - 4 45,750 7 900	- - - - 12 2,242	1 750 28 169,149 161 34,787	7 43,868 19 115,140 114 12,518	- - 6 8,178 78 17,255	- - - - 6 687	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
2,097,119 23.59 534 2,097,119	377,501 4.25 52 377,501	252,079 2.84 154 251,335	239,853 2.70 132 238,441	615,421 6.92 147 615,321	9,201 0.10 9 9,201	<u>USINES COMMERCIALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
- - 4 45,750 3 315	- - - - 9 972	37 744 4 31,998 30 1,060	17 1,412 6 21,300 102 11,207	5 100 2 3,600 12 1,706	- - - - 6 687	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
407,276 6.33 107 361,211	266,772 4.15 18 265,800	139,558 2.17 8 106,500	138,615 2.16 11 105,300	579,764 9.02 50 574,458	2,687 0.04 1 2,000	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
- - 4 45,750 3 315	- - - - 9 972	- - 4 31,998 30 1,060	4 808 6 21,300 102 11,207	- - 2 3,600 12 1,706	- - - - 6 687	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
552,175 6.52 114 552,175	206,906 3.83 25 206,906	114,501 2.12 17 114,144	115,852 2.14 111 115,637	485,019 8.98 60 484,919	2,051 0.04 7 2,051	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
- - 4 45,750 3 315	- - - - 9 972	20 357 4 31,998 30 1,060	12 215 6 21,300 102 11,207	5 100 2 3,600 12 1,706	- - - - 6 687	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
2,213,874 52.60 215 2,213,289	202,270 4.81 24 201,000	171,628 4.08 - -	138,211 3.28 - -	152,217 3.62 20 132,090	7,730 0.18 2 7,730	<u>USINES MUNICIPALES</u> <u>TOTAL, FORCE MOTRICE PRIMAIRE</u> ..... H.P. Pourcentage du total pour le Canada ..... Turbines et roues hydrauliques ..... Nomb. Capacité totale ..... H.P. Machines à vapeur, à mouvement alternatif ..... Nomb. Capacité totale ..... H.P. Turbines à vapeur ..... Nomb. Capacité totale ..... H.P. Moteurs à gaz et à pétrole ..... Nomb. Capacité totale ..... H.P.
- - 4 45,750 3 315	- - - - 9 972	1 750 22 137,151 151 33,727	8 43,060 13 93,840 12 1,311	- - 4 4,578 66 15,549	- - - - - -	<u>CAPACITE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
1,744,944 50.05 220 1,744,944	170,595 4.89 27 170,595	137,578 3.95 157 137,191	124,001 3.56 21 122,804	130,402 3.74 87 130,402	7,150 0.21 2 7,150	<u>USINES HYDRAULIQUES</u> <u>CAPACITE TOTALE DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
- - 4 45,750 3 315	- - - - 9 972	17 387 22 137,151 151 33,727	5 1,197 13 93,840 12 1,311	- - 4 4,578 66 15,549	- - - - - -	<u>USINES A COMBUSTIBLE</u> <u>CAPACITE TOTAL DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
2,059,271 24.73 323 2,059,271	375,600 4.51 42 375,600	90,000 1.08 6 90,000	83,415 1.00 11 83,415	593,811 7.13 66 593,741	8,650 0.10 3 8,650	<u>USINES A COMBUSTIBLE</u> <u>CAPACITE TOTAL DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
- - 4 45,750 3 315	- - - - 9 972	- - 6 90,000	- - 11 83,415	2 70 66 593,741	- - 3 8,650	<u>USINES A COMBUSTIBLE</u> <u>CAPACITE TOTAL DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
37,848 6.72 11 37,848	1,901 0.34 10 1,901	162,079 28.78 148 161,335	156,438 27.78 121 155,026	21,610 3.84 81 21,580	551 0.10 6 551	<u>USINES A COMBUSTIBLE</u> <u>CAPACITE TOTAL DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.
- - 4 45,750 3 315	- - - - 9 972	37 744 28 161,335	17 1,412 121 155,026	3 30 81 21,580	- - 6 551	<u>USINES A COMBUSTIBLE</u> <u>CAPACITE TOTAL DES DYNAMOS</u> ..... Kv.A. Pourcentage du total pour le Canada ..... Dynamos, C.A. .... Nomb. Capacité totale ..... Kv.A. Dynamos, C.D. .... Nomb. Capacité totale ..... Kw.

\* Compris dans Colombie-Britannique jusqu'à 1947 inclus.

(1) L'outillage générateur du Yukon et des territoires du Nord-Ouest paraît en majeure partie dans l'industrie de l'exploitation minière et de l'affinage.



TABLE 12 - ELECTRIC ENERGY GENERATED, 1949

	Canada	Newfound- land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
<b>ALL STATIONS</b>						
Total kilowatt hours generated ..... (thousands)	44,418,573	200,610	24,950	717,473	651,255	25,530,923
Per cent of total for Canada .....	100.00	0.45	0.06	1.62	1.47	57.48
Kilowatt hours generated by non-generating stations (thousands)	1,545	-	-	-	670	-
Kilowatt hours generated by generating stations .. (thousands)	44,417,028	200,610	24,950	717,473	650,585	25,530,923
Kv.A. capacity of generating stations .....	9,084,009	47,195	7,902	208,655	164,056	4,903,755
Ratio of output to maximum capacity ..... p.c.	55.82	48.53	36.04	39.26	45.27	59.43
Average kilowatt hours per Kv.A. ....	4,890	4,251	3,157	3,439	3,966	5,206
<b>GENERATING STATIONS</b>						
<b>COMMERCIAL STATIONS</b>						
<b>TOTAL</b>						
Kilowatt hours generated ..... (thousands)	26,730,742	200,513	19,378	443,475	435,702	19,529,600
Kv.A. capacity .....	5,475,150	47,046	5,721	150,160	82,025	3,871,932
Ratio of output to maximum capacity ..... p.c.	55.73	48.65	38.66	38.89	60.64	57.58
Average kilowatt hours per Kv.A. ....	4,882	4,262	3,387	3,407	5,312	5,044
<b>Hydraulic Stations</b>						
Kilowatt hours generated ..... (thousands)	26,123,373	200,513	682	102,427	426,840	19,524,780
Kv.A. capacity .....	5,269,746	47,046	600	34,188	81,275	3,869,895
Ratio of output to maximum capacity ..... p.c.	56.59	48.65	12.98	34.20	59.95	57.59
Average kilowatt hours per Kv.A. ....	4,957	4,262	1,137	2,996	5,252	5,045
<b>Fuel Stations</b>						
Kilowatt hours generated ..... (thousands)	607,369	-	18,696	341,048	8,862	4,820
Kv.A. capacity .....	205,404	-	5,121	95,972	750	2,037
Ratio of output to maximum capacity ..... p.c.	33.76	-	41.68	40.57	13.49	27.01
Average kilowatt hours per Kv.A. ....	2,957	-	3,651	3,554	1,182	2,566
<b>MUNICIPAL STATIONS</b>						
<b>TOTAL</b>						
Kilowatt hours generated ..... (thousands)	17,686,286	97	5,572	273,998	214,881	6,001,523
Kv.A. capacity .....	3,608,859	149	2,181	78,495	82,051	1,051,823
Ratio of output to maximum capacity ..... p.c.	55.95	7.43	29.17	39.85	29.91	66.39
Average kilowatt hours per Kv.A. ....	4,901	651	2,555	3,491	2,620	5,816
<b>Hydraulic Stations</b>						
Kilowatt hours generated ..... (thousands)	16,837,648	-	-	265,561	25,101	6,000,895
Kv.A. capacity .....	5,251,074	-	-	72,132	11,989	1,051,876
Ratio of output to maximum capacity ..... p.c.	59.12	-	-	42.00	25.90	66.40
Average kilowatt hours per Kv.A. ....	5,179	-	-	3,679	2,094	5,817
<b>Fuel Stations</b>						
Kilowatt hours generated ..... (thousands)	848,638	97	5,572	8,637	189,780	428
Kv.A. capacity .....	357,785	149	2,181	6,363	70,042	147
Ratio of output to maximum capacity ..... p.c.	27.08	7.43	29.17	15.49	30.94	55.24
Average kilowatt hours per Kv.A. ....	2,372	651	2,555	1,357	2,710	2,912
<b>TOTAL HYDRAULIC STATIONS</b>						
Kilowatt hours generated ..... (thousands)	42,961,021	200,513	682	367,788	451,941	25,525,675
Kv.A. capacity .....	8,520,820	47,046	600	106,320	93,264	4,901,571
Ratio of output to maximum capacity ..... p.c.	57.56	48.65	12.98	39.49	55.32	59.45
Average kilowatt hours per Kv.A. ....	5,042	4,262	1,137	3,459	4,846	5,208
Kilowatt hours generated by water power ..... (thousands)	42,779,199	199,874	462	367,784	446,519	25,522,221
Kilowatt hours generated by auxiliary plants ..... (thousands)	181,822	639	220	4	5,422	3,454
<b>TOTAL FUEL STATIONS</b>						
Kilowatt hours generated ..... (thousands)	1,456,007	97	24,268	349,685	198,642	5,248
Kv.A. capacity .....	563,189	149	7,302	102,335	70,792	2,184
Ratio of output to maximum capacity ..... p.c.	29.51	7.43	37.93	39.01	32.03	27.43
Average kilowatt hours per Kv.A. ....	2,585	651	3,323	3,417	2,806	2,405
<b>CONSUMPTION OF ELECTRIC ENERGY (Thousands of kilowatt hours)</b>						
Total kilowatt hours generated .....	44,418,573	200,610	24,950	717,473	651,255	25,530,923
Kilowatt hours imported from the United States .....	31,205	-	-	-	19	569
Kilowatt hours imported from other provinces .....	-	-	-	-	13,773	6,011
Kilowatt hours exported to the United States .....	1,756,752	-	-	-	45,868	2,070
Kilowatt hours exported to other provinces .....	-	-	-	5,417	-	5,528,508
<b>KILOWATT HOURS FOR CONSUMPTION IN CANADA ..... (thousands)</b>						
Domestic service .....	42,693,026	200,610	24,950	712,056	619,177	20,006,925
Commercial light .....	5,678,847	31,906	9,435	127,666	87,846	999,216
Small power .....	2,409,203	13,151	6,425	64,554	51,408	634,157
Large power .....	748,720	10,276	1,404	65,682	26,041	150,789
Municipal power .....	28,169,721	124,513	2,411	338,239	411,070	16,458,802
Street lighting .....	745,871	880	1,051	4,390	2,838	174,895
Free service (other than street lighting) .....	285,136	2,419	470	7,439	6,846	53,253
Losses .....	82,135	2,389	40	227	701	72,619
.....	4,573,393	15,076	3,716	103,879	32,427	1,485,216

/ Excludes exports to other provinces and/or to the United States.      x - Exports of Quebec power to U.S.A. through Ontario are credited to Ontario.  
 (1) Generating equipment for Yukon and Northwest Territories is located mainly in the mining and smelting industry.  
 \* Included with British Columbia up to and including 1947.

TABLEAU 12 - ENERGIE ELECTRIQUE GENEREE, 1949

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and Northwest Territories *	
11,324,407 25.49 700	2,159,998 4.86 174	858,088 1.93 -	800,729 1.80 -	2,105,186 4.74 -	44,956 0.10 1	<u>TOUTES USINES</u> Total Kw. heure générés ..... (milliers) Pourcentage du total pour le Canada ..... Kilowatt-heure générés par les usines non-génératrices .. (milliers) Kilowatt-heure générés par les usines génératrices ..... (milliers) Capacité des usines génératrices en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
11,323,707 2,189,187 59.05 5,173	2,159,824 391,251 63.01 5,520	858,088 252,079 38.86 3,404	800,729 256,515 35.64 3,122	2,105,186 654,213 36.74 3,218	44,955 (1)9,201	<u>USINES GENERATRICES</u> <u>USINES COMMERCIALES</u> <u>TOTAL</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
1,765,909 362,175 55.66 4,876	1,347,373 206,906 74.34 6,512	565,145 114,501 56.35 4,936	475,554 132,514 40.97 3,589	1,918,965 520,119 42.11 3,689	29,128 (1)2,051	<u>Usines Hydrauliques</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
1,705,160 324,817 59.93 5,250	1,345,595 206,100 74.53 6,529	491,571 90,000 62.35 5,462	406,243 100,077 46.34 4,059	1,891,659 514,248 41.39 3,678	27,903 (1)1,500	<u>Usines à combustible</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
60,749 37,358 18.56 1,626	1,778 806 25.18 2,206	73,574 24,501 34.28 3,003	69,311 32,437 24.39 2,137	27,306 5,871 53.09 4,651	1,225 (1) 551	<u>USINES MUNICIPALES</u> <u>TOTAL</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
9,557,798 1,827,012 59.71 5,231	812,451 184,345 50.31 4,407	292,943 137,578 24.30 2,129	325,175 124,001 29.93 2,622	186,221 134,094 15.86 1,589	15,827 7,150 25.27 2,214	<u>Usines Hydrauliques</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
9,556,155 1,826,522 59.73 5,232	810,841 183,250 50.51 4,425	- - - -	- - - -	163,468 118,355 15.76 1,581	15,827 7,150 25.27 2,214	<u>Usines à combustible</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
1,643 490 38.28 3,353	1,610 1,095 16.78 1,470	292,943 137,578 24.30 2,129	325,175 124,001 29.93 2,622	22,753 15,739 16.51 1,446	- - - -	<u>TOUTES USINES HYDRAULIQUES</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
11,261,315 2,151,359 59.76 5,235	2,156,436 389,350 63.23 5,539	491,571 90,000 62.35 5,462	406,243 100,077 46.34 4,059	2,055,127 632,603 37.09 3,249	43,730 8,650 57.71 5,055	<u>TOUTES USINES A COMBUSTIBLE</u> Kilowatt-heure générés ..... (milliers) Capacité en Kv.A. .... Proportion de la production à la capacité maximum ..... p.c. Moyenne de kilowatt-heure par Kv.A. ....
11,228,553 32,762	2,156,401 35	491,571 -	362,960 43,283	1,959,124 96,003	43,730 -	<u>CONSOMMATION D'ENERGIE ELECTRIQUE (En Milliers de Kw.H.)</u> Total de kilowatt-heure générés ..... Kilowatt-heure importés des Etats-Unis ..... Kilowatt-heure importés d'autres provinces ..... Kilowatt-heure exportés aux Etats-Unis ..... Kilowatt-heure exportés à d'autres provinces .....
62,392 37,848 18.81 1,648	3,368 1,901 20.34 1,782	366,517 162,079 25.81 2,261	394,486 156,438 28.79 2,522	50,059 21,610 26.44 2,316	1,225 551 25.38 2,223	<u>KILOWATT-HEURE CONSOMMEES AU CANADA</u> ..... (milliers) Service domestique ..... Eclairage commercial ..... Petite force motrice ..... Grosse force motrice ..... Energie (municipale) ..... Eclairage des rues ..... Service gratuit (autre que l'éclairage des rues) ..... Pertes .....

\* Exclut les exportations par d'autres provinces et/ou aux Etats-Unis.

x - Les exportations d'énergie électrique du Québec aux Etats-Unis par l'Ontario sont rapportées sous le titre Ontario.

(1) L'outillage générateur du Yukon et des territoires du Nord-Ouest paraît en majeure partie dans l'industrie de l'exploitation minière et de l'affinage.

x - Compris dans Colombie-Britannique jusqu'à 1947 inclus.



TABLE 13 - FUEL, 1949

	Bituminous Coal Charbon Bitumineux			
	Canadian		Imported	
	Quantity	Value	Quantity	Value
	Quantité	Valeur	Quantité	Valeur
	Tons Tonnes	\$	Tons Tonnes	\$
Canada .....	x 1,026,905	x 5,639,624	61,551	502,019
Newfoundland .....	-	-	-	-
Prince Edward Island .....	1,050	12,979	-	-
Nova Scotia .....	276,919	2,202,828	-	-
New Brunswick .....	151,056	1,300,764	-	-
Quebec .....	1,402	13,922	-	-
Ontario .....	892	10,303	61,551	502,019
Manitoba .....	-	-	-	-
Saskatchewan .....	x 142,893	x 623,058	-	-
Alberta .....	x 403,891	x 1,153,761	-	-
British Columbia .....	x 48,802	x 322,009	-	-
Yukon and Northwest Territories x	-	-	-	-
	Fuel Oil and Diesel Oil Mazout et huile diesel		Wood Bois	
	Quantity	Value	Quantity	Value
	Quantité	Valeur	Quantité	Valeur
	Gal. Gal.	\$	Cords Cordes	\$
Canada .....	34,545,741	3,281,666	-	-
Newfoundland .....	76,573	13,923	-	-
Prince Edward Island .....	2,382,371	233,326	-	-
Nova Scotia .....	432,154	66,957	-	-
New Brunswick .....	718,444	116,168	-	-
Quebec .....	718,433	136,444	-	-
Ontario .....	887,667	156,012	-	-
Manitoba .....	261,623	47,962	-	-
Saskatchewan .....	20,492,356	1,489,375	-	-
Alberta .....	1,069,542	196,808	-	-
British Columbia .....	7,383,883	793,383	-	-
Yukon and Northwest Territories x	122,695	31,308	-	-

Note: Tons = 2,000 lbs.  
Gallons = Imperial  
Cords = 128 cu. ft.

x - Includes sub-bituminous coal.  
x - Included with British Columbia up to and including 1947.



TABLEAU 13 - COMBUSTIBLE, 1949

Lignite Coal Charbon Lignite		Gasoline		Kerosene	
Canadian - Canadien		Gasoline		Kerosene	
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur
Tons Tonnes	\$	Gal. Gal.	\$	Gal. Gal.	\$
63,944	111,627	77,285	15,098	-	-
-	-	169	70	-	-
-	-	4,472	1,064	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	54,413	9,203	-	-
215	1,047	4,054	1,156	-	-
37	274	-	-	-	-
63,131	106,375	7,238	1,920	-	-
-	-	5,697	1,354	-	-
561	3,931	1,200	300	-	-
-	-	42	31	-	-
Manufactured Gas Gaz fabriqué		Natural Gas Gaz naturel		Other Fuel Autre combustible	Total
Quantity Quantité	Value Valeur	Quantity Quantité	Value Valeur	Value Valeur	Value Valeur
1,000 cu.ft.	\$	1,000 cu.ft.	\$	\$	\$
1,000 pds.cu.		1,000 pds.cu.			
13,731,198	331,238	2,391,689	225,340	78,030	10,184,642
-	-	-	-	-	13,993
-	-	-	-	-	247,369
13,727,637	327,982	-	-	59	2,597,826
-	-	-	-	-	1,416,932
-	-	-	-	4,903	164,472
3,561	3,256	-	-	-	673,793
-	-	-	-	29,382	77,618
-	-	-	-	-	2,220,728
-	-	2,391,689	225,340	617	1,577,880
-	-	-	-	43,069	1,162,692
-	-	-	-	-	31,339

Note: Tonne = 2,000 livres.  
Gallon = Impérial.  
Corde = 128 pds. cu.

x - Y compris la houille maigre.  
\* - Compris dans Colombie-Britannique jusqu'à  
1947 inclus.



















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